

# THE AMERICAN FARMER

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## INSECTS OF THE YEAR.

### Fruit Growers Troubled During the Past Season by the Same Pests.

BY F. M. WEBSTER.



HOUGH the present may not have been a particularly fruitful year for the fruit grower, I do not know that the failure, so far as it might be termed such, was especially due to insect attack. There has not, to my knowledge, been any serious outbreak extending over any considerable area. Neither have any number of new pests come to the front demanding new treatment, although, of course, in no year are we entirely without new predators or, to us, new characteristics in the old. Although I have discovered within the last year a number of species of insects heretofore unknown to science, yet I must congratulate you on the fact that these belong without exception to the parasitic or beneficial—your friends and not your enemies. These will be described in a forthcoming Station Bulletin.

Of the insects which seem to merit attention, and, doubtless, also your discussion, is a species of Gall Mite (*Cecidophyes pruni*) sent me last April from Mr. E. C. Willetson, of Fairfield County. The presence of these mites may be detected, during the season when the foliage is not present, by a greater or less number of small galls or pustules, indistinctly resembling small buds, but really being only the galls in which the mites pass the winter. The insect is allied to the Pear-leaf Mite (*Phytolius pyri*), but has not as yet become sufficiently injurious to create alarm. In case it becomes necessary to destroy them it will probably be an easy matter to do so with kerosene emulsion. In spring the mites escape from their winter quarters and



scatter over the trees, and a spraying at this time would destroy them. It is hardly probable that we can reach these minute animals in their galls, as a substance that would penetrate these would be likely to affect the tree. A very similar species affects the hackberry, causing the thick, compact masses of short twigs which are so abundant on these trees all over the State. This last insect is not mentioned in Dr. A. S. Packard's recent work on Forest Tree Insects.

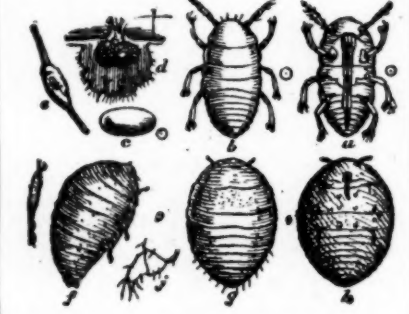
#### A NEW PREDATOR.

What now appears to be an entirely new predator on the grape was discovered by me near Hudson, Summit County. This is one of the scale insects belonging to the genus *Leucanium*. I have had no opportunity to study it carefully, as this has been delayed until my new insectary building is ready for occupancy. Such insects as this require to be studied carefully, and where their escape can be effectually prevented.

A borer in the tips of twigs of red currant was reported at the meeting of the Entomological Club of the American Association for the advancement of Science, last August, by Prof. E. W.

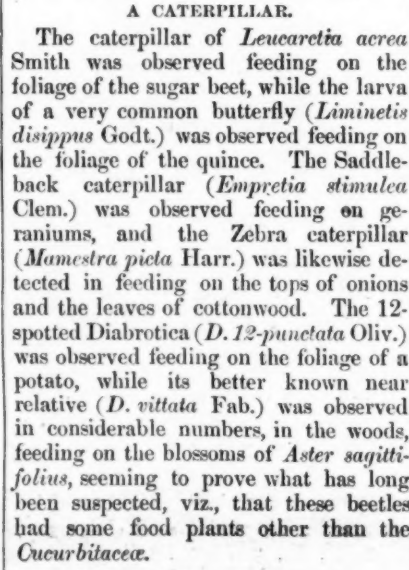
Claypole, of Akron. I have not observed this myself, and therefore extract from Prof. Claypole's paper. Indications of the presence of this insect are to be observed about the middle of May, and consists of a single ring or girdle some distance below the tip, which at once begins to wither, and, later, dies down to the girdle. The insect is one of the sawflies, of the family *Cepidae*. There appears to be some grounds for supposing this to be the Yellow-bellied Janus (*J. flaviventris* Fitch) (see Canadian Entomologist, XXIV, p. 274), which was described in 1862 as affecting rye, the larvae boring in the straw. (Fitch, 7th Rep., p. 851.) Dr. J. A. Lintner has received it from Adrian, Mich., and reared one adult, which he says does not fully agree with Fitch's description. Whatever the species may prove to be, it will probably have to be destroyed by cutting off and burning infested twigs.

The Clover Root Borer (*Hylesinus trifolii* Muell.) was received from Summit County, burrowing into pea vines close to the surface of the ground, seeming to injure the Telephone and Bliss's Abundance worse than other varieties. The land had not been devoted to clover for four years, though on some of it peas had been grown for the last three years. Plants sent me by Mr. Austin A. Napp, of Richfield, June 25, contained beetles in the roots. The pest does not appear



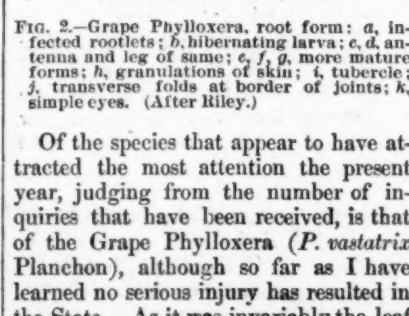
not congenial to the species, and, therefore, they will probably be observed only in clay soils. Holes, made with an iron bar to the depth of a foot or more about the roots, and into which two or three ounces of bisulphide of carbon or the same quantity of a mixture of carbolic acid and water, one part of the former to 50 of the latter, is poured and the holes then filled up, will probably be found the most effectual and practical remedy. The fumes of these will permeate the ground and destroy any insect life within reach.

Another grape pest, and one with which you are probably too well acquainted, is the Rose Chafer (*Macrodactylus subspinosus* Fab., Fig. 4). I do not mention this in order to add anything new to its history, or give any measures of prevention or destruction, but to lay before you a plan for, if possible, fighting the pest in its breeding grounds. These are known to be in sandy, grass, or wood lands, and we have the life history sufficiently clearly understood to enable us to know just where and in what stage of development they are at certain seasons of the year. I believe this insect to breed in great abundance in small areas, and it does seem to me that it would be possible to ascertain the location of such and fight the pest in its haunts before it has emerged from the ground and become diffused throughout the neighborhood. It has been demonstrated that an application of kerosene emulsion, followed by a sprinkling of the sprayed surface with water, or by a moderate rainfall, will destroy other allied species while in the larval stage. The French also use a capsule which contains bisulphide of carbon. This capsule is placed in the soil, and the action of the moisture will dissolve it, thereby liberating the contents in the earth. In this way the fumes of this insecticide, which we know to be deadly to all insect life within its reach, would be applied underneath the surface and do its work. I have never used these myself, and it is possible that it may prove impracticable to do so, but the longer I study this pest the more I am impressed with the idea of striking at the root of the trouble. In fact, there does not appear to be anything else to do, as all measures that have, as yet, been evolved by the ingenuity of man have failed to materially benefit the grape grower. I am confident that the Experiment Station authorities would permit me to devote a large portion of my time, for one or two seasons, for the purpose of carrying out a series of investigations with a view of destroying these pests in the manner indicated. Our funds are, however, at present too limited to carry the expense of the project, and I would call your attention to the propriety of the society, at this meeting, taking some action looking to the passage of a bill this winter by our State Legislature providing a sum of \$600 or \$800 to cover traveling and other necessary expenses in carrying out these investigations. If your action in this matter receives the prompt support of local societies and fruit growers in the affected portions of the State it seems as though the measure could be carried through the Legislature without serious opposition. If it is found practicable to destroy the pest in this manner the grape growers of a neighborhood can combine, and thus reduce the expense of application.



#### THE GRAPE PHYLLOXERA.

The caterpillar of *Leucocryptus aceris* Smith was observed feeding on the foliage of the sugar beet, while the larva of a very common butterfly (*Limenitis disippus* Godt.) was observed feeding on the foliage of the quince. The Saddle-back caterpillar (*Empetria stimulea* Clem.) was observed feeding on geraniums, and the Zebra caterpillar (*Mamestra picta* Harr.) was likewise detected in feeding on the tops of onions and the leaves of cottonwood. The 12-spotted Diabrotica (*D. 12-punctata* Oliv.) was observed feeding on the foliage of a potato, while its better known near relative (*D. vittata* Fab.) was observed in considerable numbers in the woods, feeding on the blossoms of *Aster agnifolius*, seeming to prove what has long been suspected, viz., that these beetles have some food plants other than the *Cucurbitaceae*.



Of the species that appear to have attracted the most attention the present year, judging from the number of inquiries that have been received, is that of the Grape Phylloxera (*P. vastatrix* Planchon), although so far as I have learned no serious injury has resulted in the State. As it was invariably the leaf or Gall-form (Fig. 1) that was sent me, I infer that it was more a matter of curiosity than injury. It does not appear to be generally known that there are

two forms of this insect, one inhabiting the roots (Fig. 2) and another the leaves, and that remedies must be applied to the roots of the vines. This pest is so well known, and extended notices of it are so readily accessible, that there really seems to be no need of a detailed account of it here, beyond illustrating the several forms and giving the usual methods of treatment. Sandy soils are



FIG. 2.—Phylloxera galls on grape leaf. (After Riley.)

not congenial to the species, and, therefore, they will probably be observed only in clay soils. Holes, made with an iron bar to the depth of a foot or more about the roots, and into which two or three ounces of bisulphide of carbon or the same quantity of a mixture of carbolic acid and water, one part of the former to 50 of the latter, is poured and the holes then filled up, will probably be found the most effectual and practical remedy. The fumes of these will permeate the ground and destroy any insect life within reach.

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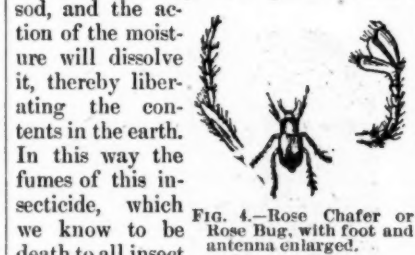


FIG. 4.—Rose Chafer with foot and antenna enlarged. (After Riley.)

The Four-striped Plant-bug (*Pezomachus lineatus* Fabr., Fig. 7), a bright yellow bug about three-fourths of an inch long, with black antennae and two black stripes on each wing cover, the outer terminating in a black dot, has been reported as injuring the currant in some portions of the State. This is not a new enemy of the currant, but I do not find that it has been brought to the notice of horticulturists of the State. The injury, which is to the foliage, is done while the bugs are in the larval and pupal stages. The leaves first show a great number of brown spots, and later the hole turns brown and dies. Kerosene emulsion is the remedy for this pest.

AN ODD VERMIN.  
The Buffalo Tree Hopper (*Ceresa bubalus* Fabr., Fig. 8) is one of the old pests, but so erratic in its appearances that it frequently is mistaken for a new enemy. I have received examples of its work the past season from Kansas and from Ottawa County in this vicinity, and also from the eastern part of the State.

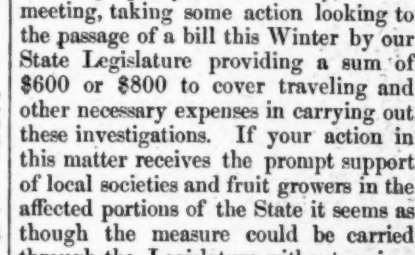


FIG. 8.—The Buffalo Tree Hopper. (After Riley.)

These attacks were all of them by the adult females, and the injury was due to their ovipositing in the trunks and larger limbs of young fruit trees. Some sections of young peach trees sent me last Spring from Ottawa County had the outer bark completely riddled with punctures, and

to give you the method whereby growers in New Jersey destroy them. A piece of cardboard, 15 by 20 inches, is nailed to a handle, and both sides of the cardboard covered with tar. The operator walks between the rows, stirring the vines so as to induce the insects to fly, and, waving the tarred board forward and backward, most of the insects are captured and held by the tarred surfaces, even more being stuck to the back than the front of the board. Two or three trips through the vineyard usually clears it of the pests. Possibly some such device might be used in capturing the Grape Flea-beetle (*Haltica chalybea*, Ill.).

#### CABBAGE PESTS.

The Harlequin Cabbage Bug (*Murgantia histrionica* Hahan, Fig. 6) is one of the coming pests of the cabbage grower of southern Ohio, though I do not expect it to reach the northern part of the State. This pest is a native of Texas, and first came to notice as a cabbage insect about 26 years ago, since which time it has been gradually moving northward. It crossed the Ohio River into Indiana in 1890, and there is a specimen in the Experiment Station collection, collected in Warren County, O., in 1889, showing that it had at that time worked its way some distance north from the locality where it first gained a foothold in the State, probably Cincinnati. This is allied to the squash bug, and equally as difficult to manage. It seems absolutely proof against all insecticides, including kerosene emulsion of ordinary strength. The color is orange and black, their arrangement being shown in Fig. 6, and from which it gains its common name—harlequin. In the South the insect passes the winter in the adult stage, and this is probably true of it in the North, as I have received pupae from southern Indiana in October. They hide away among rubbish and debris of the fields in the Fall, and thus find protection from the winter weather, appearing in spring to multiply and feed not only on cabbage but other crucifers. Piling up the refuse of cabbage fields, thereby offering hiding places, and burning these in winter is one method of disposing of them. Mr. H. E. Weed, of the Mississippi Experiment Station, has found that by growing early mustard or radish and turning from old roots a bait is thus produced, which will attract the bugs early in the season. These plants can then be sprayed with kerosene emulsion strong enough to kill the insects, though it of course kills the plants also. I do not look for serious trouble from this pest north of Columbus, latitude 40 degrees north.

The Cabbage Plusia (*P. brassicae* Riley) is coming to be a greenhouse pest, causing considerable injury to Winter-growing lettuce. The larvae appear to be as fond of the tender-growing hot-house plants as they are of the leaves of cabbage. It has caused some trouble in this direction in the station greenhouses, and, besides, I have received it from other portions of the State accompanied by similar complaints. Pyrethrum will destroy these larvae, and, as you know, it can be used on cabbage or lettuce with perfect safety.

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the inner bark was full of eggs. As a matter of course, young trees could hardly recover from such a multiplicity of wounds, and consequently, as I understand, many of the trees were killed. While the adults thus injure shrubs and small trees in the Fall, the young also are injurious, puncturing the stems of succulent vegetables like the tomato and potato, sucking the juices therefrom. The action of the tiny beak on the plant is somewhat peculiar, as it causes a pronounced restriction or ring, which withers away to but a small portion of the usual size. In fact, the stem or stalk thus injured has the appearance of having had a small string drawn tight about it, thus breaking down the cellular structure by the contraction. Serious injuries to newly set tomato plants was reported from Richmond, Ind. I have also observed them clustered on the stem of Red Clover, sucking out the juices. The eggs hatch early in June and the young are thus described by Dr. Fitch: "They are of a compressed triangular form, of a leaf-green color, and a soft fleshy texture, with two rows of long spines along the back, 11 in each row. These spines are soft and flexible, and bearded with fine bristles. Two are placed upon the summit of each segment except the head and the tip. They project upward and curve outward, except the forward pair, which are curved strongly forward over the head, and the hind pairs, which are inclined backward. The head and legs and the lower edges of the body are bearded with fine bristles. The last segment is a cylindrical tube equaling in its length the three or four segments forward of it. This tube has a pair of small spines at its tip on the upper side and is bearded with fine bristles along its underside."

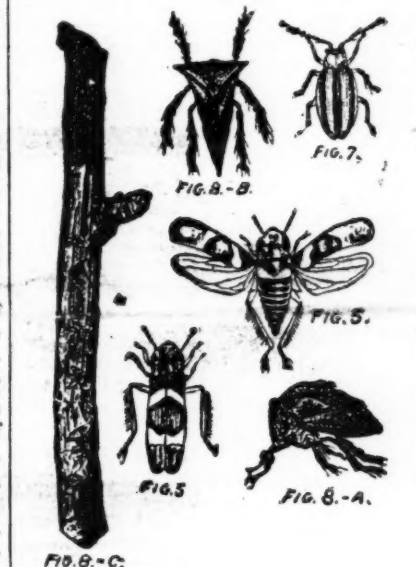


FIG. 6.—Harlequin Cabbage Bug. (After Riley.)

FIG. 7.—Striped Cucumber Beetle. (After Riley.)

FIG. 8.—Buffalo Tree Hopper: a, view from above; b, side view; c, punctured twig.

clined backward. The head and legs and the lower edges of the body are bearded with fine bristles. The last segment is a cylindrical tube equaling in its length the three or four segments forward of it. This tube has a pair of small spines at its tip on the upper side and is bearded with fine bristles along its underside."

The adults are of a green color, and sufficiently illustrated by the figure to enable their ready identification. For their destruction, we can only recommend cutting off limbs containing the eggs and spraying with kerosene emulsion in early June to kill the young.

#### PEST BREEDERS.

These are a few of the insects which have claimed my own attention during the last year. There are some others which I have noticed, and which will be treated of in our Station publications. There are some things, however, connected with your business which I fear you do not see or, seeing, do not heed. Wherever I go, over the State, I see old orchards reduced to a few very old and misshapen trees, standing alone in the fields, marking in many instances, sites of the homes of the sturdy pioneers. The home has disappeared, or is marked only by a shallow depression in the earth, or a few scattered bricks embedded in the soil—one chapter of life's story, while the churchyard, whither have gone the busy hands that planted these orchards. I can well understand the feelings of reverence which may cluster about these fragmentary testimonials of the days of "and lang syne," and would not for a moment change these feelings if I could. But, with the attention that most of these old trees receive, it were better if they, too, were like the hands that planted them, revered only in memory. Producing but little fruit, and this, necessarily, of an inferior quality, they stand a perpetual menace to the orchards in their vicinity, sending out year after year myriads of codlin moths, borers, bark lice, and other fruit pests, for the propagation of which they prove a veritable nursery. I do not say cut down all of these old trees. I would not do it myself; but I would see to it that the codlin moth, borers, bark lice, and apple scab were not allowed to hold high carnival among their branches. Try the pruning knife and spraying machine on the best of these trees, and, mayhap, you will astonish the palate of the gray-haired grandsire who still re-

mains with such a tempting feast as will bring back memories of a half century ago. Do this, or else (peace be to their ashes) cut them down and remove them. I wonder if the horticulturist ever stops to consider what an important factor country fences may be in the problem of success in his calling. Can you compute the number of raspberry sawflies, cane-borers, root-borers, or leaf-rollers each half mile of old worm railfence, with its wide margin of brambles on each side, will produce and send out over the adjoining country? What clouds of rust and fungus spores are carried away, over miles of country, by the wind? Growing up along these fences are many trees of the wild cherry, and, now that the leaves are off, there is hardly one of these that is not decorated with the abandoned webs of the Tent Caterpillar and Fall Web-worm. Do you suppose these will all remain where they originated? Not a bit of it! They will crawl or fly forth in every direction to found new colonies. Why not? There is not a hand turned against them. I confess, when I see these things, it is not surprising that the country is overrun with insect and fungus pests. The only wonder is that they are not even worse than they are, and, but for their natural enemies—the unseen influences which you know not of—you would have far more trouble than at present. Insecticides and fungicides are all well enough and essential, but how much might be accomplished without them, and by clearing up the fence and hedge-rows, roadsides and similar neglected places? Surely the ax may go with the spraying machine, and I sometimes think it might properly take the lead.

#### YUCCA VALLEY.

##### The Most Fertile and Healthy Spot in Oregon.

EDITOR AMERICAN FARMER: The town of Yucca, in which I live, is a new town just building up, situated on the O. & C. R. R., 166 miles south of Portland, in one of Oregon's most fertile valleys. There is but very little scientific farming done here. Three years ago I sowed 100 acres in wheat, plowed the ground about four inches deep, sowed over one and a half bushels to the acre; raised upon an average 27 bushels per acre. Being an old Union soldier, I contracted a disease in the army which has stayed with me pretty well. However, the second year on the farm I let my ground volunteer; a portion of which I thrashed went 17 bushels per acre. So I have concluded that there is more clear money in sowing every two years. A great many of my old comrades are coming to this part of Oregon, most all being affected with the same disease, and say they expect to end their days in and around Yucca. In this article I most sincerely invite all old comrades to this part of the country, where they can live in peace and happiness; where we have no wind storms or tornadoes; where everything suited or needed for health, happiness, and prosperity is found.

Here in southern Oregon three years ago I came from California, and I can truthfully say I find in Yucca Valley just what I have been looking after for the past 20 years: A healthy country; good water; where the grass never dies; where we have no extremes of heat or cold, and where we have no malarial diseases of any kind.

Prices of stock and produce are good. Work horses, \$60 to \$100; milch cows, \$15 to \$25; sheep, \$2 per head; hogs, three and a half cents per pound (on foot); turkeys, 14 cents per pound (live); young chickens, \$3 to \$4 per dozen; old, \$4 to \$6.50; eggs, 32 cents per dozen; butter, 25 cents per pound; flour, \$1 per sack, 25 cents per bushel; bacon, 12 cents per pound; potatoes, 60 cents per bushel; apples, green, 25 cents per bushel.—W. BRIMMIT, Yucca, Ore.

Any of our young friends can earn a watch and chain in an hour by getting six of their friends to subscribe for THE AMERICAN FARMER, at 50 cents each.

#### Tobacco and General Crops.

The Troy (N. Y.) Farmers' Club recently discussed the question whether the growing of tobacco was more profitable than the raising of hay or grain. The general idea seemed to be that tobacco was not more profitable than the other crops in the long run, provided the same care was given the cultivation of the latter.

#### Not Every Day.

THE AMERICAN FARMER, published at Washington, D. C., celebrated its 74th birthday with its last issue. It is not every day that a modern journal lives to celebrate such an age, and THE AMERICAN FARMER is to be congratulated.—Lafayette (Ind.) Call.

#### A PLEA FOR PLOWING MATCHES.

The Great Advantage Reaped by Skillful use of the Plow.

EDITOR AMERICAN FARMER: Being one of the managers of the Wheatland Plowing-match Association for the past 15 or 16 years, and not having seen an article in any of the agricultural papers, only *The Farmers' Review* and your paper, I was well pleased to see such a well-written article in your paper, indeed. The agricultural papers seem to ignore plowing altogether, yet it is the foundation of all farming. The question may be asked, what is good plowing? Straight, even, and neat furrows is about all the plowman can do. Then the plow has much to do with the quality of the work. There is also much in the proper manipulation of the plow to make it work easy for the man and team as there is in holding the plow.

Land well and evenly plowed is half worked. Everything that has to be done on it after can be easier and better done, even a harrow will work easier and better on evenly-plowed ground, and everything else in the same proportion. Reapers, mowers, hay-rakes, and hay-loaders will work better and easier. There is a great amount of force wasted on badly-plowed land, and then it is easier for both man and team to plow straight and even. Then the question comes up which is the best plow, as the object of plowing is to expose the most soil to the influence of the atmosphere and frost. Since this is so, then the plow that will accomplish it is the best plow. Now, I have never seen a 14 or 16-inch plow that would properly turn more than 13½ or 14½ inches on prairie soil.

In England they plow a furrow six by eight inches and set the sod at almost an angle of 45 degrees, which would expose more of the surface to the atmosphere than any other size of a furrow. We have no plows here yet that would turn such a furrow. I am of the opinion that there is nothing that would improve farming and be a greater benefit to the American farmer than a better system of plowing, and there is no better plan than a plowing match to improve it. It brings the young men together. They see their own defects in plowing and they get good points from others, and there is none so good at plowing that they cannot be improved.

The great difficulty in commencing a plowing match is to get the young men to take hold. They do not know how to commence, but they came, learned, went home and practiced, and many of them have become fine plowmen, and all were improved.

The expense of a plowing match is not much. As we conduct it, it is about \$130 per year, raised by subscription from the farmers of the township, and which has always been cheerfully paid. The managers have used great care in selecting judges, and there has never been any fault found with their decision. Indeed, it has become a source of great pleasure as well as of profit and improvement to our community.—JAMES PATTERSON, East Wheatland, Ill.

#### The Plowing of the Present Day.

EDITOR AMERICAN FARMER: The New Year's number of THE AMERICAN FARMER was appreciated by one of its readers whose wish it is that all the numerous readers of THE AMERICAN FARMER were equally pleased. Mr. Pettit's article on plowing matches is full of solid, sound facts, and whoever builds on them builds wisely; but to get up an interest in them at fairs will require a radical change. Just think of it, \$5,000 in premiums for those that speed horses, and \$5 for speeding the plow; \$1,000 per month for a baseball player, and \$10 for a plowman.

The country is growing very fast and outgrowing a good many old customs and ways of doing things. To put a young man of the present day behind a plow, and expect him to enjoy the healthful, invigorating influence of turning over the fresh earth is out of the question. He must go to a polytechnical school and learn to make machines to run by steam or electricity that will haul half a dozen plows while he sits on a cushion and steers the machine. He does not consider the days and nights he works his brains at the expense of his health, and the continual strain to keep up with the improvements, for fear someone else will get ahead of him. Plowing must be done all the same, and done well, either by holding the handles of the plow or machine, and the old motto may read something like this:

He that will not hold or drive  
Has got to scheme that he may thrive.

—J. E. C. Catonsville, Md.

Read our great watch offer on another page and get up a club of six.







## THE LOVER'S REUNION.

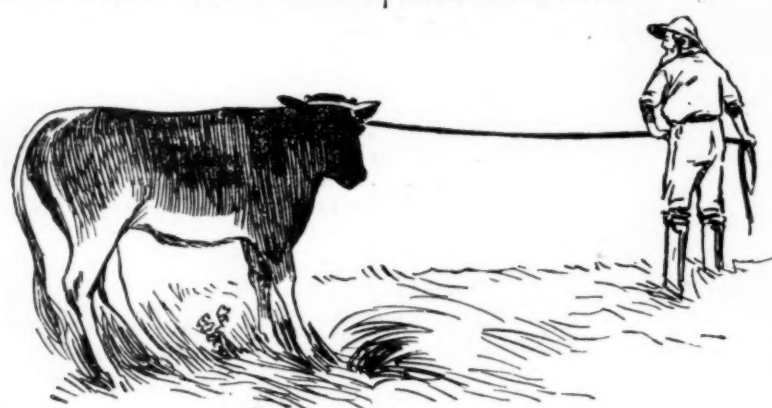
## A Feud in Hickey Township and the Way it Ended.

BY B. L. KETCHUM.



IT WAS certainly a first-rate feud, and a source of much pride to the settlers in and about Hickey Township, just as a hanted house or a murder mystery or a long-lived scandal might have been, only the feud was much more satisfactory, because it had been on for four years, and hardly a month had passed during all that time that had not witnessed some new episode in the affair, and each one seemed more startling than its predecessor. And so it was that the good people of Hickey Township held their heads just a little bit higher than their less fortunate friends who resided in more peaceful portions of the county.

It—the feud—had started on account of a yearling calf—than which, permit me, a stock-raiser of limited but fruitful experience, to interpolate, there never was, nor can there ever be, a creature more hopelessly, unreasonably "onery," and one more productive of sinful language and display of sultry temper on the part of its keepers. Yearling calves have caused the recording angel more trouble, broken up more old friendships, produced more family jars, and, in the form of veal, begotten more indigestion and the insomnia resultant therefrom



IT—THE FEUD—ALL STARTED ON ACCOUNT OF A YEARLING CALF.

than—but this is not an essay on the sin, sportive steerlet and his shortcomings. The Walkers and the Benedicts had been old neighbors for years, "back in Iowa." In fact, the elder Walkers and the elder Benedicts had been married about the same time, at the beginning of the war, and had just settled on adjoining homesteads when the first gun was fired on Sumter. The men enlisted by side, ate and slept and suffered together; and at home their young wives waited and wept together. When the little Walkers and the little Benedicts grew large enough to run about, they were playmates and boon companions; the children of one family felt as much at liberty in the home of the other as they did in their own—for 28 years the two families had lived in peace and amity, and then that miserable calf precipitated an irreparable row. It was too bad, all the neighbors said, but it was a noticeable fact that none of them attempted to patch up a peace; life in Hickey Township and at Hickey Corners would have been dull, indeed, but for the feud, so everybody sat by and watched each new phase of the affair with nervous, morbid interest, and commented thereon, but not in a manner likely to prove conducive to a truce on the part of the disputants.

It was this way: The Benedict and Walker houses had been built on adjacent corners of the homestead quarters, and were quite close together; in fact, one well sunk on the quarter section line between the two homesteads had furnished water for both families for the first four years after coming to Dakota, and it was only a short distance from either house.

But it came to pass that on the Walker domain there was born, and grew, and waxed fat and "sassy" a brindle calf, with a right smart chance of white in its eye and a plethora of deep-dyed mischief in its soul—and he (for it was a young gentleman "critter"), while yet of tender age but tough record, engendered the feud. He had wandered away the day before, and when he returned at night the gate of the calf pen was shut against him; and in the morning, when Papa Benedict arose from post-breakfast family prayers, and followed by the younger male Benedicts, hid him toward the stable, he beheld his neighbor's incipient steppin nipping in the bud sundry young and toothsome cabbages and kicking out of the earth in his bovine abandon all he could not eat.

Then was Papa Benedict wroth, and thereupon did he give way to naughty, profane words, while the young Benedicts surrounded the offending calf and brought him up for judgment.

Now, Papa Benedict was a man of hasty temper, but easily calmed; so, when the calf was tendered him at the end of a long picket rope, his wrath had decreased several degrees, and he wound the rope around his hand and started to lead the calf home.

It was while he was pondering on what to say to the calf's owner that the calf suddenly remembered a previous engagement and started, in some haste, to keep it, heading directly across the croquet ground. Papa Benedict wished to follow with more dignity than the calf desired, and presently his feet were scraped from under him by a wicket, and he was being handled the way the vaqueros in South America are supposed

to make butter—at the end of a lasso. He did not look very neat when a few minutes later he reached the Walker residence and called his neighbor out. He was holding the calf up short, but his temper had slipped its tether, and caused him to say bad words, to which Papa Walker replied in kind—whereat Papa Benedict seized a convenient neck yoke and killed the cause of the trouble.

Of course there was a fight and considerable ill chosen language; then, as soon as possible, Papa Benedict sued Papa Walker for damage to his cabbages, and Papa Walker sued Papa Benedict for the value of the calf. After that, they prosecuted each other for assault and battery, the younger members of both houses "sassed" each other at every available opportunity; Mrs. Walker and Mrs. Benedict did no more "neighborin'"; and Mort Benedict and Nellie Walker "busted up" with each other. That is, Nellie broke with Mort, who, for his part, had a wholesome contempt for feuds and such nonsense, and would have ignored the state of affairs, so far as Nellie was concerned, except for the opposition any overtures from him would have received on all sides, and especially from Nellie. So he had to grin and bear it, leaving, however, all hostilities to the others, and speaking pleasantly to any of the Walkers he chanced to meet.

But, finally, through a rash act of his own, he was forced into the feud. There was a husking bee of the good old-fashioned sort at Thompson's one night, and the younger members of the hostile houses attended. During the evening Mort found a red ear in his pile, and he never knew what impelled him to do it, unless it was that Nellie looked so pretty and tempting—he took his former sweetheart in his arms and kissed her—not once but three times.

From wheat regions up North came tales of his deadly work—of Counties almost entirely laid waste, of hundreds made homeless and penniless, with nothing left, even wherewith to wring their bread out of the soil.

In C—County and its neighbors, however, all felt secure. The fires were far north of them and being gradually exterminated. Besides, they were in the Jim River Valley; it is curious how much confidence the proximity of a river will give to the settler who is threatened by prairie fires.

Mort Benedict and his father were returning from the County town one day, having been in to leave "mother" for a two days' visit, and to have the breaking plow repaired. For a day or two there had been rumors of fires only 20 miles or so to the north, and they were talking of this as they crossed the bridge, four miles from home. As they reached the top of the hill on the west side of the river Mort glanced at the northern horizon, which was not distant on account of a range of hills running east and west, and—

Did his eyes deceive him, or was that smoke just rolling up above the line of hills?

"Look, father!"

"Good God, Mort! She's a-comin', an' comin' 't beat h—, too! We got 't race, 't save anything!"

And race they did, but the fire was racing, too; and when they drove their panting horses into the dooryard the flames were only a few miles away and coming down at lightning speed.

While Tom and Roy saddled their ponies and rounded up the live stock, Mr. Benedict and the three elder boys and Besie, in an incredible short space of time, put into the two wagons everything that it was possible to save, after which Hal and George saddled their ponies, joined Tom and Roy with the herd, and the whole procession, headed by the wagons driven by Mort and his father, moved off at a rapid pace toward the river.

Then, and only then, did Mort notice that there was no sign of human life about the Walker place. His heart gave a leap.

"Bess!" he said, sharply, "did—did it get away? Did you notice 'em movin' round?"

The girl's eyes opened wide. "Oh, Mort! I haven't heard or seen a sign of 'em all day!"

"Take them reins. I'm going back an' see."

He leaped from the wagon and ran back, noting, as he did so, how hot the air had become, and how near the big wave of smoke was.

Mrs. Walker, singing softly as she bustled about the kitchen, was a bit startled to see who her unannounced visitor was.

"Mis' Walker, where's all you men folks? No, I didn't come for trouble—only th's a prairie fire only a little ways off, an' comin' down like mad!"

Mrs. Walker sank into a chair. "Oh heavens! An' father sick abed an' all th' boys over 't Berry's on a breakin' bee!"

"Good Lord! Ain't I glad I come back! Wher's th' horses?"

"Oh, Mort! They're all loose in the pasture!"

"Git what things ye wantuh save 'gether real quick! They ain't no spare time." And Mort tore out of the house like a madman, and down to the pasture, not noticing that Nellie had entered the kitchen and was staring at him open eyed.

Both Mr. Walker's wagon teams were composed of animals usually as docile as lambs; but to-day, bunched together in a corner of the pasture, they

facter came the flames; the billow of smoke rolled over them, now and then dropping feathery grass cinders as it passed; they could hear the roar of the fire and feel its hot breath whenever the wind increased in velocity—and Jim River so far away.

Nearer came the great wave of flame; the air was dense and suffocating. Mort, in his frenzy, lashed the now running horses incessantly, cursing, praying, saying he knew not what. Mrs. Walker wept and prayed; Mr. Walker now and then gave a feeble moan; Nellie, on the seat beside Mort, kept her lips tight closed and said nothing, only clinging to the seat more desperately as the wagon bounced and lurched.

Mort looked at her; her silence angered him. "Git off'n th' seat!" he roared. "How d'ye think I c'n drive, with you sittin' thar?"

The girl obeyed, and felt, rather than climbed, back into the box.

Mort Benedict's recollections of what occurred after that are very dim. He remembers driving deeper and deeper into the terrible heat and smoke, of tearing through a volume of flame that seemed endless—flame that burned his eyes, his nostrils, his throat, and scorched his hair and eyebrows—then, with a final leap, the horses dashed down the slope into the shallow river, and he knew no more.

When Mort awoke he could not for some time realize where he was, and lay for some minutes trying to remember. Oh, yes; he was in Will Berry's room. He remembered the antlers on the wall and the white curtains at the windows. Someone came in softly from the next room.

"Who is it?" he asked.

It was Nellie, and she came and leaned over him. "It's me, Mort. I've been here all th' time. I thought ye knew me, sometimes. You've been sick."

"Are ye here to stay, Nell—always, I mean?"

She sat down on the edge of the bed and put her hands on his shoulders.

"If you want me to, Mort."

He drew her face down to his, but put her at arms' length, presently.

"But how about th' feud, Nell?"

"They ain't no more feud, Mort."—The Argosy out.

See our remarkable offer on another page.

The Luck in the Horseshoe.

Everybody knows that almost all our existing superstitions date back for their origin to heathen times, though they have often been slightly or superficially Christianized at later periods so as to bring them into harmony with the general body of public opinion. I think it probable, therefore, that when the horseshoe superstition first arose people specially selected a horseshoe as the best available bit of iron to repel the attacks of trolls or faeries, witches or warlocks and other evil influences, because it had itself a certain inherent sanctity of its own derived from its connection with a sacred animal.

And later, I believe, this very same sanctity might help the superstition to persist, even after the religion of Christ had partially ousted the religion of Woden and Thor. For we know that Christianity made very slow progress indeed among the mass of the people in England for many years; that heathen practices continued to be performed in secret by a large number of the population; and that many usages essentially heathen hold their places to this day with our agricultural classes.

Now, no class would be more likely to retain such beliefs and practices than the class that has to deal most with horses and stables—a class who still firmly believe in all sorts of heathenish luckies and unluckies.

It seems probable, therefore, that in many cases the horseshoe was set up, not only to frighten away the evil eye, ghosts and trolls, faeries and witches, but also, to some extent, to curry favor with the good old gods by what was in many ways a denial of allegiance to the new ones.

It was as much as to say to the little folk, on the one hand, "Don't come near; 'ware iron; we're under Thor's protection, and able to hurt you!" and, on the other hand, to Thor, "We're still your men; we've never abjured you; take good care of us!" If this were not the true meaning of the horseshoe, I think we should have had a crucifix or the sign of the cross in its place, which is the ordinary and recognized Christian way of protecting one's self against the attacks of evil spirits.—The Cornhill Magazine.

We propose to give away 100,000 watches as fast as our friends want them.

Straws.

In Portugal the wine-treading is done by a gang of men dancing to the music of a bagpipe. The work is hard, the weather warm, the results indescribable.

Vermont is the principal maple sugar producing State in the Union, and New York follows a close second. If the bounty be taken off the product these two States will suffer most.

A roundup of coyotes was recently made in the sagebrush 25 miles southeast of Idaho's capital. Thirty were captured. The skins of the animals are valuable for winter coats.

The common snail is said to have 150 rows of stout serrated teeth. The whole palate contains about 2,100 teeth, it is claimed, while a full grown slug has over 26,000 of these silicious spikes.

State Dairy and Food Commissioner McNeal, of Ohio, is sending out circular letters to dealers in and consumers of vinegar. He gives in detail the result of his researches and publishes a long list of dealers and brands of adulterated vinegars.

## THE APIARY.

## Humming.

Sprinkle borax to drive away ants. Wet earth is the best of all cures for bee stings, and is always at hand.

Mice will attack beehives, and must be guarded against by closing the entrances of the hives with fine wire mesh.

The value of the honey and wax produced in the United States during the past year has been estimated at \$20,000,000.

Bees should be let alone during cold weather. After they are ready for winter they should not be fed or disturbed in any way.

Spring is the best season of the year to purchase bees, as there is no risk of loss unless it is from starvation, and it is easy enough to feed them in the Spring.

In the majority of bee cellars ventilation of some kind is necessary. Many persons ventilate through the doors and windows, and obtain as good results as though regular ventilators were used.

Poison smoke of any kind, such as from tobacco, kerosene, oiled rags, etc., is unnecessary in the handling of bees. Any kind of plain fuel, such as rotten elmwood or rags, that will make good smoke, is sufficient even for Cyprian bees.

## A TALK TO FARMERS.

## A Strong Argument for Bees on the Farm.

EDITOR AMERICAN FARMER: As I was brought up on a farm, I know whereof I speak, and shall give nothing to-day except actual experience. I have often said that I did not think a farmer, especially one with a home, lived up to his privileges, unless he kept bees enough to supply his own table with that most wholesome and delicious sweet—honey.

The same statement I rehearse to-day. A few hives of bees kept about the place, and only a little attention at noon, or before breakfast, which would be called recreation rather than work, would give the bees all the attention necessary.

There is seldom a family of three or four without at least one of them having a turn of mind in the direction of beekeeping. I have often visited families, and on asking why they did not keep bees, they would answer, "Oh, they sting me the worst kind, and I could not think of having them about the place."

Well, everybody is afraid of bees until they become accustomed to them. So is everybody afraid of all our domestic animals until they become acquainted with them.

Think of a grown man, for instance, who would take right hold of a horse, even a gentle one, if he had never handled a horse before. Well, please let me here make you a broad assertion, or at least it may be called such by those not familiar with the habits of bees. There is no more danger in handling the gentle races of bees than there is in handling the gentle horses. Why? Just because there is not a horse on the globe to-day so gentle that he is absolutely free from danger, at least those that are in common everyday use.

Well, there is not a single colony of bees in the United States that is entirely free from stings. But, as stated above, if the gentle yellow Italians are kept there is scarcely any danger of stings, and they only sting under rough treatment, and then you could not blame them. All that fear of stings will disappear as soon as you begin to make the acquaintance of the busy little beauties—the yellow Italian bees. At other times I have sold farmers a hive of bees, and the usual remark is, "I don't want to raise only honey enough for my own use. All I raise that I do not need I will give to my neighbor." Now, I know this is very generous in you, but suppose you should produce more than you and the neighbor both can use, would not the money you could sell it for be just as good as any other money, or go as far toward paying the taxes of the farm as any money? Or will it not be just as good, dollar for dollar, as the money you wear brings, or will it not go as far in paying off the mortgage on your home? To all this you say yes. Well, then, why not keep a few bees as well as a few chickens? And last, but not least, one of the little boys, or one of the little girls, or the good housewife, could manage the bees and procure all the honey needed for the table of the home, and some to spare to buy a Christmas suit; all produced right at your own door and without the aid of hired help. Now, let all the progressive farmers who read this bestir themselves at once and procure a hive of bees. "Oh," you exclaim, "it costs too much." Well, did you ever ascertain what it would cost to buy a hive of bees and necessities to run it for honey one year? Well, listen for a moment, and I will tell you. A hive of Italian bees, \$5; a section case filled with sections, 50 cents; one new empty hive complete, \$1.50—to receive the swarm should one issue. I will say 100 extra sections, in case they might be needed, 50 cents; one pound of foundation, 50 cents; a smoker, \$1; "A. B. C. of Bee Culture," \$1.25. Now, turn all this \$11.25 worth of property over to one of the family, then in the Fall note results. They will stand about like this: For the parent hive and the swarm, we will say, is good for 100 pounds of honey, and at 15 cents per pound, which is as low as nice section honey sells, \$15; an extra colony of bees, \$5, making \$20 in all. Now, this is only an average crop during an average year. And it can be depended upon just about as certain as an average crop of corn, wheat, oats, or cotton. Well, you see, a balance in favor of the venture of \$8.75. Now, without any outlay, except a few supplies, what is the outlook for this new enterprise on the farm, and we will only expect an average as before when the result as above is many times doubled in good seasons? Why, it just looks as though it would beat anything on the hill for

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And the most comfortable for the wearer. It is not unusual to see a farmer working in the fields with an artificial leg, or a brakeman applying his brake on a fast-running train, or an engine driver, or a fireman, or a miner, in fact, men of every vocation at labor in the full capacity of their employment, wearing one or two artificial legs with rubber feet, performing as much as men in possession of all their natural members, earning the same wages; in fact, expert enough to do any work in the use of their rubber extremities.

MR. A. A. MARKS, DEAR SIR: I have worn one of your artificial legs for five years, and I am exceedingly well pleased with it. The rubber foot is a grand invention, an answering or getting out of order. I am farming and do all my work, such as plowing, sowing, cradling, and everything a farmer has to do. I have a farm of 100 acres, and do not keep anyone to wait for me. I can recommend your very highly in fitting from measurements. You could not get a better fitted mine any better if I had come to you.

Yours respectfully, CHAS. E. WEBER.

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the amount invested in it, and according to my judgment it will do it, too.

Should you wish to learn where to get your supplies, the party from whom you buy your bees can usually tell you, if he has not got them himself. If he cannot inform you, just do what I did nearly 20 years ago—drop a postal card to A. I. Root, Medina, O., and the way is all clear in a short time. Some farmers say, "Well, I will raise something on the farm to buy my honey with," but my experience is if you undertake this I will be safe in saying that you won't have as much honey as the family can eat at one meal, and may not even have a taste, unless you visit for a Christmas dinner.

You may put out another excuse and say, "Well, I don't think bees will do well on my place." To answer this question as short as possible, I will say that you may expect bees to do moderately well wherever man secures a living by tilling the soil. Now, my talk is over, I will give you the reason why farmers should keep bees. First, I do not think any farm complete without bees. Second, no farmer is perfectly independent unless he raises everything he uses on his table. Third, because they are a source of pleasure and revenue to the home. Fourth, in my estimation, there is no better or nicer ornament for the yard or garden than nicely-painted beehives. And last, but not least, they pay better than anything else on the farm, according to the amount of capital and labor they require. A farmer ought not to go to town without taking something to sell, and if he keeps bees he can go with the good wife to sell the honey, and thus go oftener than if he had no bees. And to close this talk to-day, I will say that where a family has plenty of honey to eat they are sweeter than if they did not have it.—JENNIE ATCHLEY, Greenville, Tex.

Any of our young friends can earn a watch and chain in an hour by getting six of their friends to subscribe for THE AMERICAN FARMER, at 50 cents each.

AGREEING WITH MR. TEFFT.

Frauds in Bee Trade Papers That Should be Eradicated.

EDITOR AMERICAN FARMER: Under the heading "Faulty Bee Trade Papers" J. W. Tefft voices my sentiments and experiences, though in too mild language to do full justice thereto. Now, I propose that you make your Apiary Department large enough to cream all that is of any practical use to the honey-producing beekeepers from the self-advertising trade papers, and the pith and points of the experience of all honest beekeepers who do not get their living by selling old queens nor young ones on or by false representations. About nine-fifths of the reading matter in the bee papers is either useless padding or downright humbuggery, or both.

The Beekeeper's Union is little more than a mutual admiration and aid society to sell queens or manufactured articles, many of which are utterly worthless. They are now making a little noise and outside show of honesty against the adulteration of honey, but they seem to be very careful not to do any effective work to stop it. Several years ago they did all they could to dodge, cover up, or deny charges publicly made that beekeepers were adulterating honey by feeding their bees glucose and sirup mixtures.

If they are now really honest in their efforts to stop all adulteration, why did they not act upon the draft of a bill published in the Washington Post Dec. 28?

If they mean to be honest all the way through, why do they not take some action to prevent the swindling, lying, and humbuggery practiced by queen dealers?

A few years ago one of their very pious members sold an old queen to an ignorant and innocent brother for \$2. A few weeks afterward this victim sent Old Piety some queer-looking bees which were hatched from this queen's eggs and wanted to know what they were. Old Piety pretended that he didn't know—thought they were "sports," and advised the brother to send some to a certain professor in the "Mutual Aid Society."

Now this man had kept bees for more than 20 years, and was considered authority on all questions about them, and yet, if we believe him, he did not know what I learned the first three months I kept bees in 1872. His "sports" were small drones hatched from worker cells, from drone eggs, laid by an old "played-out queen." Another member of this M. A. S. advertised

extra queens at high prices, claiming that single colonies of this stock had stored in one season 500 pounds of comb honey. He, too, is always cocked and primed with piety.

No queen ever laid the eggs to hatch in one colony sufficient to enable it to gather and store from the flowers of field and forest 500 pounds of honey in one season. If he ever took that much from one colony he fed them nights and Sundays, and probably put in broods ready to hatch in place of eggs, and removed unsealed brood comb.

If the farmers would only together, through open farmers' clubs, for educational, social, and business purposes, and have one organ through and by which they could hold weekly conferences and combination of orders, they could save many dead-head salaries officers and vast sums of money in their buying and selling arrangements. Instead of this, they are howling for many things which would be a curse to them if they could get them.—W. M. EVANS, Amherst, Va.

Boys, you can get a good watch and chain for nothing if you will send us a club of only six subscribers for one year, at 50 cents each.

Bee Trade Papers Defended.

EDITOR AMERICAN FARMER: THE AMERICAN FARMER deserves credit for enterprise, as its report of the North American Beekeepers' Convention is in advance of all the bee papers. The report is remarkable in one respect, as being free from the ridiculous blunders so common in all attempts of daily papers to report bee conventions.

While thus giving credit that is only fairly due to THE AMERICAN FARMER, I must enter a mild protest against an article in the same issue entitled "Faulty Bee Trade Papers." If what is there said is true there is no use for bee journals and equally no use for agricultural journals. The writer says: "Beekeeping knowledge must be gained by ourselves. He who tries to solve bee problems through bee trade journals will find that it takes a little longer than a lifetime." Now, is it not reasonable that if a farmer or beekeeper gains knowledge and publishes that knowledge that others may gain the benefit of that knowledge without themselves going through the experience?

Then he accuses "the bee trade editors" of unfairness, and adds: "There are eight bee papers published, and all of them are filled with literature upon drone traps, bee escapes, Hoffman frames, clipped queens, and a host of worthless things had on sale which the beekeeper can have as a premium if he will only subscribe for their paper." I don't know whether in the above Mr. Tefft means to include drone traps, etc., among the "worthless things." If he does, I have only to say that at least a part of his list have never been offered as premiums by any bee paper. And although there may be a difference of opinion as to the relative value of different articles, I very much doubt that he can specify a single article offered as a premium by a bee journal that will not bring a cash equivalent if thrown upon the open market.

The sweeping assertion that these eight papers are for the sake of advertising free "trash to sell" is hardly the essence of fairness. At least one of them, THE REVIEW, is published by a man who has nothing to sell in the way of supplies, and his paper is filled with such things as beekeepers want to see discussed. And the same sort of literature fills the other bee journals.

The very fact stated by Mr. Tefft, that the American Bee Journal asked the question as to improvement in bee literature, seems to contradict his statements, and it would show a better spirit on his part if, instead of sending complaints to Washington, he had sent an answer to Chicago to the question asked there. If he will send to the American Bee Journal an answer, telling just what is desired in a bee journal by beekeepers, there is no doubt about its being published and the advice closely followed.—C. C. MILLER, Marengo, Ill.

The State Railroad Commission met at Ottumwa, Iowa, and considered the complaint of butter shippers against the railroads. Until recently butter shipped in barrels was rated as second-class freight. The railroads changed the rate to double first-class. No decision was reached by the commission, but the remarks of the members indicate a victory for the shippers.



## THE AMERICAN FARMER.

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## THE FIGHT FOR FREE WOOL.

It looks as if the fight for free wool will be postponed until the beginning of the next session. It may, however, come on any day. The bill passed by the House of Representatives at its last session is now on the Senate calendar, and may be called up at any time. But at the most the fight is only briefly postponed. It is bound to come at an early day. The opponents of the duties on wool are numerous, determined, well organized, and have an abundance of both money and influence. The out-and-out free traders are hostile to wool duties, *per se*, as they regard them as the bulwark in the castle of protection. If the protection on wool can be removed they believe the whole edifice of protection will tumble. Importers of wool and the host of people connected with them have a natural selfish hostility to the wool duties. They believe that it is to their interest that every pound of wool used in this country be imported from abroad and handled by them. Had they their way they would kill every sheep between the Atlantic and Pacific. Next come the Eastern manufacturers, who are not at all pleased with the growth of competing woolen factories springing up all over the interior of the country, and would gladly stamp them all out. Removing the duties would be a long step in this direction, as free wool would place the seaboard factories at a decided advantage over their inland contemporaries. The latter have now an advantage in being nearer to both the sources of supply and consumption.

All these elements are leagued together for a vigorous campaign against the wool duties, which we believe is directly against the interests of every farmer in the country. There is, generally speaking, not a farm but which will be greatly benefited by having a flock of sheep upon it. Such a flock will either directly or indirectly add to the profits of the farm. Farming in this country is not so lucrative that it can afford to dispense with any profits whatever, and especially so great ones as will result from keeping sheep.

Coming down to particulars, the removal of the wool duties would mean the absolute ruin of more than 1,000,000 American farmers who are directly engaged in sheep raising. Many of them have spent their whole lives in learning their business. They studied the sheep from every point of view with the intense earnestness of a lawyer, a doctor, a scientist, or a manufacturer endeavoring to fit himself for his life work by the most thorough knowledge of his business. They have made costly experiments and gained dear experience. They have watched over their sheep as they have over their families; have fed, sheltered, and provided for them with infinite care, labor, and sacrifice of their own ease. They have carried them through all weathers, waited upon them in sickness and in health, and guarded them against their numerous enemies. By their skill and patient endeavor they have developed breeds that are distinctive and not surpassed by any in the world.

Now the rich fruits of all this infinite effort are threatened with destruction. To remove the protection on wool will be to throw open our market—the richest of any Nation on earth—to the products of the South American pampas and the boundless ranges of Australia. It will become impossible to raise a pound of wool in this country at a profit. Every one of the 50,000,000 sheep in the country will become a dead loss to its possessor. American wool raising will be impossible, and those engaged in it will have to crowd into other already crowded branches of business.

This catastrophe can be prevented if the wool growers will only rouse themselves to the protection of their endangered interests. Powerful as the combination is of the free wool advocates,

that of the wool growers can be made still more so. There are over 1,000,000 sheep raisers in the country. They all have votes—they each have political influence. All that is needed is that they make their influence felt in the right direction. They must give their Senators and Representatives to clearly understand that the retention of protection on wool is a paramount issue; that while there may be reduction and revision elsewhere, the wool duties are already too low, and must not be further reduced.

THE AMERICAN FARMER will lead in this fight from start to finish. It has no concern with any portion of the protective system except that relating to agricultural products. It believes firmly and ardently that it is the duty of the Government, first and foremost, to guard the interests of our farmers, for unless this is done there can be no real prosperity for the country. This is the battle that THE AMERICAN FARMER is here in Washington to fight, and it proposes to do it in a way that will secure victory. It has absolutely no connection with any politician or party, and will judge of every man in public life solely by his course toward the farmers and their interests. Whenever he is a true friend he shall be praised, without regard to whether he is a Republican, Democrat, Populist, or otherwise. When his acts are inimical he shall be condemned, equally regardless of party affiliations. There is not a more thoroughly independent paper in the whole country than THE AMERICAN FARMER, and it is solely and entirely the representative and champion of the man whose name it bears—the American farmer.

## SILVER LEGISLATION.

The next epoch in silver legislation will be the struggle over the bill framed by Representative Andrew, of Massachusetts, and which is intended as a compromise. It begins with a concession to the anti-silver idea by providing for the repeal of the Sherman act, which directed the Secretary of the Treasury to purchase 4,000,000 ounces of silver at market rates. It next gives a sop to the silver men by providing that all the silver purchased under that act shall be coined into dollars. Then it gives the National bank friends a slice of the pudding by permitting those institutions to issue notes to the face value of the bonds they have on deposit. They are now allowed to issue 90 per cent. of the face of those bonds. The tax on National bank circulation is to be reduced from one per cent. to one-third of one per cent.

It is calculated that the increase of circulation resulting from the difference between the market and coinage values of the silver now held by the Government will be about \$50,000,000, and the increase in the issue of National bank notes will raise the total expansion of the currency to about \$100,000,000.

Opinions differ widely as to the possibility of the bill passing. It will require a number of Republican votes, and the Democrats say that it is not likely that these will be given, as the Republicans are not disposed to do anything to help Mr. Cleveland out of the silver embarrassment which will confront him at the outset of his administration.

On the other hand, the advocates of free silver say frankly that they will not vote for the bill, as they will not do anything to put silver in a worse position than it is. They will not even repeal the Sherman act and go back to the Bland act, which provided for the coinage of 2,000,000 silver dollars a month. The least they will accept will be the coinage of at least 4,000,000 silver dollars a month, and they will filibuster to prevent the passage of the Andrew Bill without some such provision, and as the days of the present session are few they feel that they can be successful, unless the closure is enforced against them by the party caucus.

The advocates of the bill say that under it the total expansion of \$100,000,000 in the circulating medium will take place in about two years from the passage of the bill.

## VETERINARY DEPARTMENT.

We have engaged the services of one of the first Veterinary Surgeons in the country to conduct the Veterinary Department of THE AMERICAN FARMER, and he will answer all questions that our readers may desire to put to him. This will be a feature of the highest value to all subscribers who own stock, and will be worth to them many times the cost of the paper.

## THE ANTI-OPTION BILL.

Again THE AMERICAN FARMER has to go to press without reporting the passage of the Anti-Option Bill. But the end is at hand. Senator Washburn secured the agreement of the Senate that a vote should be taken on the amendments to the bill and the bill itself at 2 o'clock on the afternoon of Tuesday, Feb. 1, which is a day after THE AMERICAN FARMER was put to press. We are sanguine that if the vote is had the bill will be passed by a handsome, good majority, in spite of the powerful opposition to it. The amended bill will then go to the House for concurrence. We do not think there is any doubt that President Harrison will sign it. We congratulate our readers in advance upon this success.

## CALL UP THE PURE FOOD BILL.

We ask Gen. W. H. Hatch, the Chairman of the Committee on Agriculture of the House of Representatives, to call up the Pure Food Bill, now sleeping quietly in the pigeonhole of his committee room, and put it on its passage. The bill, which has been earnestly petitioned for by farmers all over the country, was passed by the Senate last Winter, and was sent to the House, where it was pigeonholed in obedience to the clamor of the patent-medicine men, who mistakenly thought it would compel them to make public their formulas. They moved the advertising agents, who handle the immense business they give the newspapers, and the advertising agents stirred up the newspapers into hostility to the bill by fears of injury to their advertising patronage.

The alarm was utterly nonsensical. The bill does not compel the analysis of all patent medicines. It simply provides that they may be analyzed upon due complaint having been made of the pernicious effects of any preparation, and then the formula is only to be published after the conviction of the vendor in court. Very few patent medicines would be affected in any way by this, and the ones that would be should be. The composition of nearly every medicine in the market—certainly all of the leading ones—is generally known. Anyone can know all about them that chooses, for not only are the recipes for making them published in druggists' books and publications, but in every large city are expert chemists who will make analysis of them for a few dollars.

It is likely that the patent medicine people understand the bill better than they did last Winter, and will not oppose it so strenuously.

This being the case, all that is necessary is the consent of Speaker Crisp and the action of Gen. Hatch to pass the bill almost any day.

## WE WANT AGENTS.

We want every farmer who is desirous of building up a great representative organ of the American farmers at the seat of Government to act as an agent for THE AMERICAN FARMER, and endeavor to secure as many subscribers for us as possible among his acquaintances. The importance of the paper to every farmer in the country is apparent upon the least thought. It is one that they ought all to take, not only for its general excellence as an agricultural paper, but because it keeps them carefully in touch with all that is being done affecting their interests in Congress and the Executive Departments at Washington.

We give liberal commissions and premiums to agents, and we want every live, progressive farmer to interest himself in extending the paper's circulation. We will send sample copies wherever desired.

Let all who get this number take action at once to help us build up the circulation of a great paper, which will properly represent the farmers at the Capital of the Nation. The more readers and subscribers we have the more effectively we can work for the farmers.

Gov. FLOWER makes an excellent recommendation that all the various agencies for promoting agricultural knowledge under the authority of the State of New York be concentrated at Cornell University. This institution has been doing splendid work in the interests of agriculture, and it is desirable that it be strengthened as much as possible. The Governor also wants to add to it a department of veterinary science and one of forestry, both of which are very necessary to the public weal of the State.

THE AMERICAN FARMER is only 50 cents a year.

## WRITE TO US.

We want all farmers, farmers' wives, sons, and daughters to write to us freely on any subject that concerns them. Let the farmers write about any detail of farming or farm management, give their experience, their success or failure with any method, breed, seed, or other thing that they have tried. Let the farmers' wives write to us about household matters, about their work in and around their homes. Let the sons and daughters write us about matters that concern young folks in the country. Let all ask us about anything that they wish to know. We shall be glad to hear from every one of them, and every letter shall receive the most careful attention and be promptly answered, either by mail or through the columns of the paper. We shall be glad to hear from all of them, with relations of their experience, hints, and suggestions, which will be interesting to others who are doing the same things and meeting with the same difficulties that they are.

THE AMERICAN FARMER wants to be the National medium of communication and interchange of ideas among those who follow the great calling of husbandry. It aims to be a paper of the farmers, for the farmers, and edited by the farmers. So let every one make it a point to write to us on some farming subject.

ELECTION of Senators by popular vote is right, and there is a much easier way of securing it than by a Constitutional Amendment. Let those who favor this change insist upon Senators being nominated in State Conventions, along with other candidates, and the candidates for the Legislature elected at the same election be considered as bound to vote for the Senatorial candidate who is on their party's tickets. In this way, a little insistence on the part of the Legislature to vote for any other man than the people's choice as it is today for a Presidential Elector to vote for any other man than the ones who are on the head of the ticket upon which he was himself elected. This is all that makes the cumbersome College of Electors tolerable by the people, and the popular election of Senators can be brought about as readily as our fathers did away with the idea of their fathers that the College of Electors should actually exercise a choice in the election of a President and a Vice-President.

At last the attention of Northern people is being attracted to Georgia as a fruit-growing region, and quite a number are down there this Winter prospecting. One party of 50 successful fruit growers from Ohio have recently been at Macon, and the probability is that many of them will buy land and settle there. If they do they will show sound judgment. No part of the country offers better advantages for certain kinds of fruit than Georgia. Land can be bought there for a ridiculously low price, and we risk nothing in predicting that men are now living—and they are not so very young either—who will see the fruit crop of Georgia worth more than the entire cotton product of the Atlantic Seaboard.

HON. WM. LAWRENCE and J. S. McDowell, of Ohio, were in Washington last week at the invitation of the Secretary of the Treasury for the purpose of examining wool samples. They completed their work and prepared an exhaustive report, which is now in possession of Assistant Secretary of the Treasury Spaulding. It will not be made public until that gentleman's return from Florida, which will probably be in a week or so.

Ask your neighbors to subscribe for THE AMERICAN FARMER.

ALAS, how some knowledge always comes to us too late! No sooner had we discovered that the eppornis, of Madagascar, laid an egg 13 inches long and altogether about 150 times as big as a hen's egg, than the scientists inform us that the bird is extinct, and so dashed all our hopes of possibilities of crossing it on our native fowls and increasing the quantity of albuminous and nitrogenous elements one would get in a dozen eggs.

If you want to get full particulars of the final action of the Senate on the Anti-Option Bill be sure and get the next issue of THE AMERICAN FARMER. It will contain a full report of the closing debate on the measure, the amendments, and other changes made, and the names of the Senators voting for and against it. A copy should be in the hands of every farmer.

THE agitation for good roads has reached far-off Washington, and the people of Lewis County, in that State, have organized a Good-Roads' League, which evidently means business, for it has some of the best workers in the country at its head. N. B. Coffman, President of the First National Bank of Chelalis, is Chairman of the Committee on Legislation.

The Ohio cider makers got after the bogus cider vinegar fellows pretty sharply last year, and promise to make it still more interesting for them this year.

THE cause of Woman Suffrage progresses. The Supreme Court of Illinois has decided that women can vote at school elections.

THE Wisconsin Legislature adopted a resolution asking the Representatives from that State to vote for the Anti-Option Bill.

Get up a Club for THE AMERICAN FARMER.

## PERSONAL.

The agricultural press of the country has sustained a severe loss in the death of Mr. Orange Judd, of the *Orange-Judd Farmer*, which occurred at his home in Evanston, Ill., on the 20th of December. He was born near Niagara Falls, N. Y., in 1822. His father was Ozzis Judd, who came of sturdy Puritan stock, and was one of the first Free State settlers in Kansas, and was killed during the early struggles between the pro and anti-slavery factions. He worked on a farm until he was 17, then worked his way through an academy, and began teaching a country school, which aided him to get through college. In 1852 he became connected with the *American Agriculturist*, and in the course of a few years became sole manager. He also wrote for other papers, and was interested in many schemes, such as building up a model village, building railways, etc. He took an active interest in the war for the Union, but his physical defects prevented his entering the service. He did a great deal of good as an energetic worker in the Sanitary Commission, and sent immense quantities of fresh vegetables to the men at the front, which were the most grateful of gifts to them. He was overtaken with serious financial reverses in 1873, and his partners in the *American Agriculturist* succeeded in undermining and working him out of the concern. He became President of the Sackett and Pomeroy Company, and the failure of that concern in 1887 took away what remained of his fortune. In 1884 he went to Chicago and took charge of *The Prairie Farmer*, expecting to become its owner. This expectation failed of realization, and he withdrew from the paper in 1888, and with his two sons bought *The Farmer*, of St. Paul, Minn., removed it to Chicago, and changed its name to the *Orange-Judd Farmer*, which has been quite successful. His son, James Strong Judd, who was an associate of his father for many years, and has been business manager of the paper, succeeds him as editor.

Secretary Rusk's report to the Senate states positively, as the Secretary has unofficially stated several times of late, that pleuro-pneumonia has been entirely stamped out of this country. This result has been achieved at the cost of five years' work and \$1,500,000, and it has proved exceedingly profitable to the country to carry out the work at such a cost. In no other country where cattle have been afflicted with this disease has it been so successfully dealt with. By means of the thorough system put into practice by Secretary Rusk foreign countries have been compelled to acknowledge that they had no longer any excuse for the exclusion of American cattle and beef, and our European market has been wonderfully improved in consequence. A short time ago England set on foot an inquiry to reveal reported cases of disease of cattle imported from this country, and there was some talk of exclusion, but of late little has been heard of the matter. Continued precautions against a recurrence of the disease will maintain the present high reputation of American cattle in the markets of the world.

The *New York World* says: "Whatever else may be said of Jerry Rusk, let it be remembered to his credit that he did not try to raise silk-worms in Alaska. Jerry might easily have been a greater failure as Commissioner of Agriculture than he has been." This is from the view of one particular man, and happily not of any more.

## COMPLIMENTS.

"Much Pleased."

I am much pleased with THE AMERICAN FARMER. Like myself, who are past middle age, and with failing eyesight, appreciate the fine, clean, large, print of the paper.—ALLEN PRINGLE, Superintendent, Canadian Apianian Exhibit, World's Fair, Selby, Ont.

"Should Be in the Hands of Every Farmer."

I believe THE AMERICAN FARMER should be in the hands of every farmer.—E. KIRK, Fall River, Wis.

## NEW PUBLICATIONS.

CLOVER CULTURE. By Henry Wallace. Published by the American Farm, Des Moines, Iowa. Price 75 cents.

Mr. Wallace has secured a wide reputation in the rural world as editor of the *Iowa Homestead*. In *Clover Culture* he has said almost all that can be said on the subject. A description of the various varieties of the plant is given, which are illustrated, together with the diseases of the plant. The book contains 160 pages, and should be in the hands of every farmer.

ADVICE TO WOMEN. By Florence Stock-pole. Published by J. S. Ogilvie, 37 Rose street, New York. Price 50 cents.

This is an admirable little manual for women who expect to be confined, as to the care of their health before, after, and during confinement. It tells what they should know in plain, practical language.

## Notes.

Worthington's Magazine for February opens with a decidedly interesting paper by J. A. MacKnight, entitled "Brigham Young: A Fair Sketch by One Who Knew Him." When a boy Mr. MacKnight, as a relative of the so-called "Prophet," was a member of Brigham Young's household, though not a favored one, as he was not considered a tractable young "saint." In view of Utah's struggle for statehood, and the general amnesty just granted to Mormons by President Harrison, this article possesses a timely interest, and the numerous beautiful illustrations, reproduced from photographs, admirably supplement the text. Published at Hartford, Conn.

Julian Ralph's second paper on the South appears in *Harper's Magazine* for February, and is devoted to "New Orleans, our Southern Capital." It embraces a graphic description of the distinctive features of that remarkable city, with entertaining comment and observations concerning its social and commercial aspects. The paper is fully illustrated by W. T. Snedley.

## OUR EUROPEAN LETTER.

## Agricultural Experiment Stations in France.

Special Correspondence THE AMERICAN FARMER.

PARIS, Jan. 3.

STATE money is better expended than that for the foundation of experimental agricultural stations, conducted by capable directors, with their hearts in the work. France has very early grasped the advantages of that educational machinery, and the more it is extended and diversified the more its usefulness becomes demonstrated. To breeding studs for horses, cattle, and sheep; to dairy and seed farms, the Government now contemplates the organization of stations for the improving of races of barn-door fowls, as poultry forms an immense revenue to farmers, whether the output be for the home or foreign market. Not only the best variety of birds will be tested, but the crossing of breeds ameliorated. Processes of economic feeding and fattening will be attended to, as well as the hygienic caring and housing of the birds. One end that cannot be too soon attained; arranging to have a supply of hens that will lay in Winter. Really fresh eggs fetch 72 cents the dozen in Paris without any difficulty. As all the stations soon become self-supporting, there can be no difficulty about their extension. They answer practically what the farmer should do and what he should avoid.

The seed stations are destined to a successful future. It must be remembered these experimental establishments are intended to handle ameliorations affecting well defined regions. It is whispered that the Agnomical Institute, or Paris Agricultural University, will open a department in its laboratory farm at Vincennes, a city suburb, to deal exclusively with the destructive insects of agriculture.

Some of the agricultural syndicates—now a necessity for modern agriculture—have found out a means for turning the want of banking accommodations, as the proposed National Rural Bank, to be fostered by the State, presents no immediate prospects of being organized. In their advertisements for estimates to supply an associated region with seeds, manure, feed stuffs, implements, etc., at first hands' prices, the contracts will be not only decided by the fairness of prices and the character of the firms, but by the length of time they will allow the members' accepted bills to run. As the syndicates refuse membership to farmers not reputed correct in their financial dealings, the contractors have thus a preliminary guarantee.

Fish culture is a very remunerative farm industry. I allude, of course, to fresh water fish of every kind that can be reared in ponds or sluices. The demand for such fish is ever brisk, and not much care is required to raise a few tons yearly by a few farmers grouping together. On certain parts of the coast of France farmers make a good deal of money in oyster raising, and the local agricultural societies offer now prizes for oyster and fish culture, as for cereals, roots, dairy produce, etc. There is a spirit abroad not to stop at any collateral industry that will give grit and backbone to the agricultural community.

The Winter sown wheats are showing well, perhaps a little too much so; however, the severe frosts setting in will do no harm by thinning out the redundant plants, and so promote superior tillering in Spring. Only red wheats are cultivated; they stand the Winter better, suit rich soils well, resist laying, the ears fill satisfactorily and millers have a preference for the variety. French farmers are not agreed as to adopting any rotation where wheat culture, the money making crop, is methodically studied. They do not so much regard the crop that has preceded the intended wheat sowing, as the securing of a dosing of barnyard manure. The better class of farmers break up a one-year old clover lea, and following needs, apply a top-dressing in Spring of a fertilizer; others make wheat follow early potatoes; some make it succeed oats. In the case of light land there is a decided tendency to enrich by green manuring. Any of the usual intercalary plants—save white mustard, that does not stand the Winter—will suit for plowing under at the end of Winter. Green manuring succeeds admirably on thin, calcareous soils just reclaimed and intended for vine culture. Fair crops of rye are thus raised. If the French peasant could be convinced that a mixture of rye and maize meals make a nourishing loaf, it would be an agreeable change for his potato regimen, interspersed with rye bread alone at intervals. Maize is not a popular food here, and where consumed, it is only known under the form of porridge.

The increased attention paid to the preparation of butter is reflected in the superior prices attained for brands. There is, I observe, a tendency on the part of farmers to sell their butter directly to clients in the cities, or to arrange with a grocery establishment of good standing to take as many parcels as possible. In this latter case the butter must be made up in a tasty manner, as regards size and wrappers. It must be scrupulously fresh and sweet. The retail price for these table brands is 50 cents per pound, so there is a good commission for the grocer, and a remunerative price for the farmer. Those brands that have a grip on the market are prepared from the milk of cows stranger to all slop-feeding. The latter is not in favor for dairy pur-

poses; even in hog rearing dry feed has been found to be more lucrative. Not that "liquids" are banished, only they are given in separate troughs.

No farmer now sows wheat without preliminary steeping the grain in a solution of copper sulphate. That effectually destroys the parasites. This Spring many farmers intend to "wash" in the same solution potatoes, whether whole or cuttings, intended for planting. Greater attention is being paid to the warm housing of all farm stock during Winter. Animals consume less food when thus cared, and their health is insured. Economy in food production implies a direct saving for the farmer, and it is ever round that principle that he should eye the main source of his profits. Supply cattle with plenty of pure water, and the chopper will help them better to masticate their fodder.

Much attention has during the last two years been given to potato culture for industrial purposes. This has led to more careful preparation of the tubers intended for seedling. The latter are never preserved in pits, but in a dry, well ventilated cellar; but not exposed to frost. Potatoes destined for exportation or table consumption are steeped on the first appearance of germination in a solution of sulphuric acid, then washed and dried. This preserves the flesh of the tuber firm, and avoids the wrinkling of the skin.

## NORTHWESTERN ARKANSAS.

Madison County the Most Fertile Spot in the State.

EDITOR AMERICAN FARMER: This (Madison) County (Ark.) is in the north-western part of the State, in the second tier of Counties from Missouri, and also from Indian Territory. Its area is about 480,000 acres, and in time past it all was covered with timber. There is yet 170,000 acres of Government land in the County subject to homestead entry. We have all kinds of soil, from level lands on the Boston Mountains, in southern part of the County, to low level bottoms on the streams that flow through the County. Good crops of all kinds of grains and also grasses are grown here, and no part of the State or any other State can produce better fruit or more various kinds. The same can be said of all kinds of garden vegetables, if number of people and time that has been devoted to this industry by our farmers be taken in account, always bearing in mind that this County is comparatively new in settlement. There is in this County large forests of hard wood, chiefly oak, of all kinds. In the northern part of County there are large tracts of good pine timber, and no part of the State has any better marble and building stone than can be found here.

Our public school system is growing in favor with our people; for its support we have two mills and \$1 per capita tax on all male citizens. This is the stated support of schools, and districts may vote a five mill tax. We also have in the County two High Schools, which are well located and well patronized.

The population of our County is about 19,000, and of this number about 50 are colored. Taken as a whole, our people are as law abiding as of any section of the country. Everywhere there are church organizations and Sunday schools in almost every school district. There are 100 school districts in the County, and schools are open from three months to nine months in the year. The valuation of property is about \$1,500,000, according to tax books, with a debt of only \$18,000.

There is abundance of water power furnished by the many streams which could be utilized for purposes of manufacturing. Good farms containing from 80 acres to 200 acres can be bought at very low figures, say, from \$3 to \$15 per acre, owing to its location and quality of improvements. The best lands that are well improved and are desirably located will cost from \$8 to \$15 per acre, where large orchards are growing.

Horses, cattle, hogs, sheep, and poultry are grown in connection with cereals and grasses by most of our farmers. The last season was one of the worst for grain. I have ever known here, and the prices now are: corn, 25 to 40 cents in the crib; wheat, 50 cents; say, 35 cents per bushel; hay, \$8 to \$10 per ton; hogs, gross, four cents; eggs, 20 cents; dried fruit, four to seven cents; chickens, \$1.50 to \$2.50 per dozen.

Madison County, Ark., needs immigration. If any of your readers wish any information about this country that I can furnish, I will gladly answer letters, provided always a stamp be sent. I am not in the real estate trade, but I am very anxious to see lots of good settlers come in and help develop this country, and so am willing to give my time to that end. I am not accustomed to writing for newspapers, and if this should escape the waste basket I will come again.—J. T. STANHOPE, Forum, Ark.

## The Measure of Corn.

A good deal of disturbance has been raised among the marketmen in Washington over the measures used by farmers. Wagon loads of shelled corn came into the city and the farmers measured the quantity in barrels they brought with them and claimed to hold three bushels. In some cases the barrels were short of nearly a bushel, and the marketmen objected to this method of measuring. The Commissioners were appealed to and they turned the matter over to the gentleman who has charge of weights and measures. He stated that a bushel should weigh 56 pounds, and if any person was caught selling less than that he would be arrested.

Any of our young friends can earn a watch and chain in an hour by getting six of their friends to subscribe for THE AMERICAN FARMER, at 50 cents each.



**"OPTIONS AND FUTURES."****The Consideration in the Senate of the Washburn-Hatch Bill.**

Our report in the last issue of THE AMERICAN FARMER closed with the proceedings in the Senate on Friday, Jan. 13.

On Monday, Jan. 15, the Senate resumed consideration of the bill.

Senator Hoar, of Massachusetts, made an elaborate argument against the constitutionality of the bill. He said it invaded the police powers of the States, and embarked Congress upon a wide sea of criminal legislation, where everybody was to be prevented from doing anything that was not wished for them to do by imposing a heavy tax upon them. To call this bill a tax bill was a legislative fraud. There existed no right to lay taxes where the object was not clearly revenue.

Senator Washburn called his attention to the fact that the State bank circulation out of existence.

Senator Hoar explained that this was something clearly within the power of Congress. It had the right to regulate the currency of the country, and it used the taxing power to this end.

Senator Washburn said: "I believe we have the power to destroy a great wrong. I believe we had the power to destroy the State bank circulation; I believe we had the power to destroy the making of oligarchy; I believe we had the power to destroy the lottery system, and I believe we had the power to destroy gambling in the food and agricultural products of this country. I think the Supreme Court holds that pretty distinctly in the *Vezie* case."

Senator Washburn cited opinions of courts sustaining his view.

Senator Hoar continued his argument against the use of the power of taxation for this purpose, quoting from decisions of the Supreme Court. He suspended his remarks in order to allow a motion to adjourn, and continued them when the Senate resumed consideration of the bill on Tuesday, Jan. 17.

He said, among other things:

"This is the bill which conceals the usurpation proposed by this bill, the usurpation of the amendment to the bill, and more transparent still. The State of the last Congress known as the anti-trust law is effective to deal with the whole subject so far as it is within the National jurisdiction. It answers and provides for every object which the Senate of this country has had, so far as the contracts relate to the commerce which is subjected to our authority. The Legislatures of three or four States, agricultural States, States whose farmers control and always have controlled and always will control their legislation, can supply everything that is necessary to suppress anything immoral or a public injury to these contracts."

"These Legislatures, everyone of them, are controlled by their agricultural interests, and they will listen carefully to the voice of their farmers, and they will supplement their legislation by dealing with all gambling in options or futures in six weeks, if the Senators are right. There is not, in my judgment, the slightest difficulty or the slightest necessity which should tempt us to this gross and dangerous usurpation."

Senator Vest said that if Congress had the power to tax this evil out of existence what would become of the police powers of the States? Congress had the same power to destroy other evils, from the manufacture of drinking saloons, gambling halls, opium joints, brothels, and what not?

Senator Platt, of Connecticut, said that he had not heretofore spoken on the bill, because he had not thought it necessary. He did not believe it for the Senate to entertain the principle which underlies the bill. It was the most dangerous principle to the Republic and the States that he had encountered in all his experience in the Senate. Replying to the action taken by the Farmers' Convention of Connecticut, requesting him and Senator Hawley to vote for the bill, he said:

"I respect the farmers of the State of Connecticut. I understand this resolution was passed, not without opposition, however, in that convention, and that many of the clearest and most level-headed of the farmers of Connecticut ranged themselves in opposition to it; that it was passed without much opportunity for discussion; that, as the phrase is, it was 'railroaded' through the convention. As I said, however, I respect the farmers of the State of Connecticut. I respect them too much to believe that they expect me to vote for a measure which I believe to be in violation of the Constitution of the United States, in subversion of the rights of the States, and for a principle which, if carried out to its logical conclusion, will leave us without self-governing States. I have that confidence in the farmers of the State of Connecticut, and that confidence in the farmers of the United States, as well as the Senate, some of the reasons why I shall not vote for this bill."

The Senator made an argument against the abuse of the taxing power, for the purpose sought to be accomplished by the bill.

In reply to a question from Senator Chandler, Senator Platt said that he regarded the Oleomargarine Bill as a very proper measure, and quite different from this. It is true that as originally framed, the Oleomargarine Bill intended to destroy. It imposed a tax of 10 cents a pound, and it was intended to do with the earnings of the elevator companies. They have certain fixed charges for the receiving and storing of wheat. When the crop is large their profits are large, when the crop is small the profits are small, and when the crop is small the profits are small. The idea of such a combination to depress prices was the most absurd and irrational that was ever suggested by any man of common sense.

Senator Stewart said that that might be so, but that of several combinations to increase prices to consumers. The Senate had passed several weeks over an anti-trust bill to prevent such things.

Senator Mills, of Texas, asked the Senator from Massachusetts if he would not true those elevators had made as high as 30 and 40 per cent profit in a year. How could they do this unless by manipulation of the prices of grain?

Senator Washburn said: "The depression of the price of wheat has been the cause of the do with the earnings of the elevator companies. They have certain fixed charges for the receiving and storing of wheat. When the crop is large their profits are large, when the crop is small the profits are small, and when the crop is small the profits are small. The idea of such a combination to depress prices was the most absurd and irrational that was ever suggested by any man of common sense."

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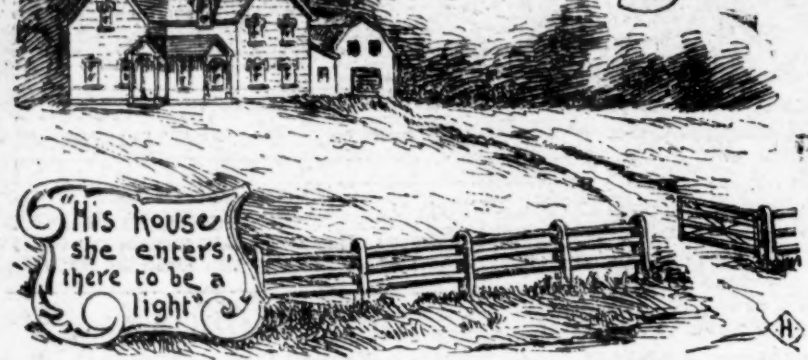
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By Senator



# THE FARM HOUSE.



His house she enters there to be a light.

The Hands on the Dial.

**F**RIDAY evening, Jan. 20, the twenty-fifth annual convention of the National Suffrage Association closed in this city. Year after year the people interested in the development of woman's position in the social and economic world have met to listen to sermons and prayers and lectures delivered by thinking women and men. This organization has had a steady growth during the last quarter of a century. It is no longer considered "fit only for old maids and dissatisfied wives," but numbers among its ardent supporters eminent men from the pulpit and bar and the wives of many politicians.

Among the delegates from the 34 States represented were women from almost every walk of life.

During the six days of the convention varied topics were discussed at length, but all bearing upon the evolution of woman.

Below are some extracts from speeches which it is worth our while to consider. The Rev. Anna F. Eastman, in her sermon, said:

It is a sorrowful fact in human history that no sooner do men and women set themselves to living together than the stronger begin to prey upon the weaker; so the yokes of Israh's time have their counterparts in our own. You are not going out in a world where you will be tempted to hold your fellowmen in actual servitude—the days of human serfdom have passed in our land, but you will be able to put a crushing weight of bondage into any relationship which you may sustain in life. You can make the woman who works for you by the day feel as if you owned her; you can lay the yoke of your pride, your prejudice, your vanity, upon the neck of anyone near to you who happens to be a little weaker than yourself. The most galling yokes which we place upon each other are unseen, unpalatable. In the sacredness of our homes we are placing yokes upon each other. The hardest thing in the world for some of us to do would be to unloose the yoke of our influence upon that one who stands nearest to us.

I tremble at the fatal power of influence. How heedlessly we use it to attain our ends, to compass our desires, little recking whether it be for growth or stunting, life or death, to him upon whom it falls.

We pity the weak, pliant, yielding nature. Let us reserve some pity for the strong—the strong will that must have its way, that knows no ruth nor rest until it has bowed to its behest the sacred rights of others. It is pitiful to be weak. It is awful to be strong.

No means of grace, dear friends (and a means of grace is just a means of goodness), will ever be given you so exalted as your homes.

Receive them and administer them as the most sacred of truths. Beautify them with art, make them clean, comfortable, pure, and sweet.

Among many other sensible things, Mrs. Ruth B. Havens, in her paper upon "The Girl of the Future," said:

The girl of the future will select her own avocation and take her own training for it. If she is a house worker, as a majority prefer to be, she will be so valuable on that line as to command great respect and good wages. Cooking will be when cooks choose their profession for love of it, and are trained and paid and honored, and people are fished who could without knowing how.

The dressmaker by choice and preparation will be an artist.

So it will be seen that although a minority of the girls of the future will sometimes choose and prepare to be lawyers or accountants or civil engineers, instead of housekeepers, the home of the future and the home of the present will not be left to the mercy of incompetent and exasperating servants. Not at all. The sewing girl of the future will not be a servant, except in that general sense in which we are all servants in just so far as we serve humanity. We are servants in too small a degree every one of us. The house helper will not be incompetent, because the development and training of woman for her best and truest work will have extended to her, and she will be maid of housework, because she loves it and is better adapted to it than to any other employment.

Mrs. Ellen B. Dietrich, in her paper upon "Best Methods of Interesting Women in Suffrage," said:

It is a vain effort to seek to separate and grade the selfishness of man and woman, in order to find which is most to blame for human errors. Human nature is too complex, the sexes too much alike, to discover whether it is a preponderance of masculine selfishness in one era that produces such an effect or the preponderance of feminine selfishness in another era which produces another effect; but of one thing we may feel pretty well assured, and that is that the legal and political subjection of woman was never accomplished without woman's consent to the measures which led to such result, even though it were but a most short-sighted consent. The utmost terrors of the laws of men have never availed one jot or tittle in changing the desires of women, a most interesting evidence of which is given in the efforts of the Florentine Republic to control women's expenditures in dress. But by persuasion each continually leads each, now into wisdom or now into folly. The subjection of woman was doubtless the result of a wordless bargain by which woman gradually sold her birthright of freedom for a mess of pottage offered her by man, neither of them comprehending the full outcome of the transaction.

There is no longer room to doubt that down to a comparatively recent time in the world's history the subjection of a wife to her husband, and political rule based on such doctrine, was an entirely unearned conception. Freedom from the rule of man having been woman's natural position, it is

to such freedom she should return, so far as it can be done without injury to the social rights of man. To make her desire freedom it is necessary for her to know that she was originally free, and to discover also the significant fact that the sexual morality of the most savage society with woman free is superior to that of the most cultivated civilization with woman enslaved. If woman's intellect cannot be sufficiently roused to make her recover her lost freedom our republic will probably follow the routine of the numerous dead republics of the past, with an ever-increasing number of idle, luxury-loving women of fashion selling themselves in marriage, or out of it, to procure idleness or luxury, an ever-increasing mass of women of the working class struggling to follow the show example of those who toil not nor spin, a rapidly multiplying set of men who take advantage of women's ignorance and love of luxury by a bargain in which what men most want is exchanged for what luxury-loving women most desire—the woman of fashion selling herself for a high price, the woman of the laboring world for a cheap one, but subjection to the will of man a part of the bargain in each case. Here then lies the real root of the legal and political subjection of women everywhere, ignorance and love of ease. It is the inevitable accompaniment of a civilization based on the foolish belief that labor is a curse, and its cure must be found chiefly in a reconstruction of woman's ideas on the subject of self-support.

Perhaps the speaker of the convention best known to the world was Carroll D. Wright, who read a paper upon "Women as an Economic Factor." In discussing this subject at length he traced the growth of female labor from its beginning to the present day. He demonstrated plainly that the woman of tomorrow must be a producer. That a few temporary evils might arise in consequence he did not deny, but marshalled facts to prove that the standard of working women was far above that of the unemployed classes.

**Fashion Hints.**  
Braids and passementeries are much worn.

All combinations of colors and styles are seen.

The popular colors are the old standard favorites, varying a little, perhaps, in tints.

Jackets with close fitting backs and loose fitting fronts are still most in favor.

In the winged wraps of the coming season much attention is given to the linings.

Fashion is becoming sensible. Neither tiny capotes nor extremely large hats are much worn.

The hair is still ornamented, but the fancy varieties of hairpins have given way to a single, handsome comb or large pin.

Among the newer shades for street are Havana brown, oak browns, chestnut, brighter greens, mastic gray, Russian blue, and silver blue.

The "between seasons" gowns are always rather neutral in effect. The cut shows a dark-green momie trimmed with velvet of the same shade.



The waist is of medium length, the shoulder seams somewhat longer than last season, the lower sleeve fitting, the upper sleeve very full.

The jacket with broad lapels are almost universally worn. The skirt is cut



from the umbrella pattern, and has stitches on around the bottom three folds one and one-half inches deep. These folds are an inch apart and are piped at the tops with the velvet. The skirt just clears the ground all around.

## Stitches.

**S**OON the housekeeper will be planning for fresh pieces of decoration to be put in place after Spring house cleaning is done.

It is always wise to have ornaments as far as possible subserve some useful purpose. A very pretty paper holder may be made of a good grade of brown crash, decorated with dark blue or brown or red marking cotton, and suspended by hempen rope. Take a piece of crash 13 by 36 inches. Hem by hand each side, fold in two, making the front piece longer by four inches than the back.

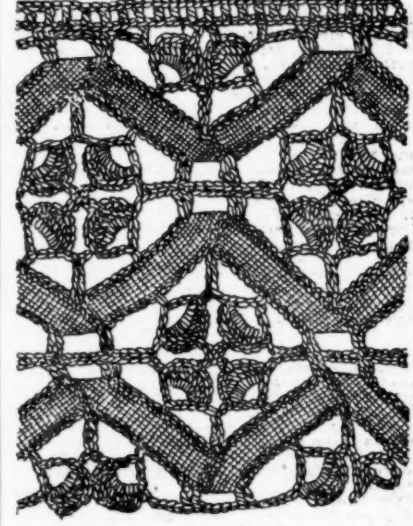
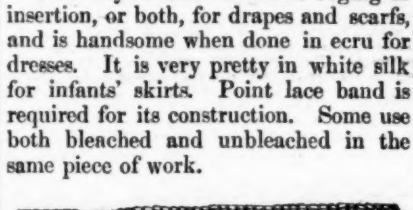


At the top of the fold divide off a slit large enough to insert a wooden rod 14 inches long and three-fourths of an inch in diameter. Draw off your pattern and work in outline stitching. Begin at row of stitching at the bottom of the slit and stroke the two pieces smoothly together, baste across at the edge of the shorter piece. To permanently close the bottom, make a row of catch stitching over the basting. Ravel out the four inches into a fringe. Insert the rod, fray the rope into tassels, and hang up. This should be hung in some place near a favorite window. Before putting in a paper be sure and fold it right side out, always keeping the more recent papers in front.

**CROCHET PATTERN.**  
Please always knit or crochet at least one shell of lace from your own directions after writing them; it saves all trouble and questions.

**TERMS USED IN KNITTING.**  
k. Knit plain.  
p. Purl, same as seam or knit stitch from back instead of front of needle.  
s. Slip, take stitch off without knitting.  
a. and b. Slip and bind, take stitch off without knitting, knit next one and slip the slip stitch over the second one.  
t. t. o. Thread thrown over to widen or form a hole.  
n. Row, knit two stitches together.  
w. Widen.  
o. t. Over twice.

This may be used for either edging or insertion, or both, for drapes and scarfs, and is handsome when done in ecru for dresses. It is very pretty in white silk for infants' skirts. Point lace band is required for its construction. Some use both bleached and unbleached in the same piece of work.



Begin by bending the band and work 2 doubles in the beginning of the bend; 4 ch, 2 doubles in the other end of bend; 9 ch, 1 single in the 7th picot of the band; 7 ch, 1 tight ch in the 6th of the foregoing 9 ch; this forms the circle around this work; 1 single, 1 ch, 7 doubles, 1 ch, 1 single, then 5 ch, 1 single in the 7th picot forms the inside of lower point; 3 ch and 1 tight ch in the 2d and of the foregoing 5 ch; 5 ch and 1 single in the 7th picot; 7 ch and 1 tight ch in the 2d and of the foregoing 5 ch; this circle is done like the preceding 1 single, 1 ch, 7 double, 1 ch, 1 single. The point lace band has picots at both edges at regular distances.  
P. S.—By tight ch, I mean putting the hook through the work and stitch on hook at the same time.

**For the Home Table.**  
CLEAR SOUP.  
(By Mrs. Benjamin F. Harrison.)

Four pounds of juicy beef; one knuckle of veal; two small turnips; two small carrots; one small pod of red pepper; one small white onion. Add six quarts of water. Salt to suit the taste. Boil six hours, then strain through a sieve, and let stand over night and congeal, then skim off all the grease. Warm in a kettle and add boiled cider to taste.

**A DRESSING FOR RAW OYSTERS.**

Place in a saucepan a heaped teaspoonful of salt, three-quarters of a teaspoonful of very finely crushed white pepper, an onion the size of a hen's egg, finely chopped, three six-inch stalks of very white celery, finely chopped, and a half teaspoonful of parsley prepared in the same way. Stir lightly together, add gradually a tablespoonful of melted butter, a pinch of Cayenne pepper, a half teaspoonful of pepper sauce, and, lastly, five and one-half tablespoonfuls of good vinegar. Mix thoroughly with a spoon. To be poured over the oysters just before eating.

## THE DAIRY.

BREEDING BETTER COWS.

Conclusion Drawn From Practical Experience.

**EDITOR AMERICAN FARMER:** Your suggestion to discuss the breeding of better cows likely originated from the fact that during the past year there has been a vast accumulation of facts bearing on the differences that exist in the value of cows for dairy purposes. The practice of testing cows has become general, and this is principally due to the simple, rapid, and reliable milk tests invented by Dr. Babcock. For a long time we have been groping for the wall like blind men, but with the advent of this invention a flood of light has been thrown upon the practices of the dairy. The more general adoption by our dairymen of the practice of testing the milk of their cows for its fat has so hastened the development of our pure-bred dairy cattle that they surpass those that now exist in the land of their nativity. Our common cows have become of enlarged capacity through the same agency.

To indicate the opportunity there is for progress in the breeding of dairy cows, let me cite ordinary and practical instances of the degrees of difference that exist among cows. In our herd we have a small cow of excellent dairy type, but by actual weight and test gave us as her last year's work 5,678 pounds of milk, which tested 5.83 per cent. of fat; which means that during the year she made 380.6 pounds of butter. She is a good cow. The record of another cow, under similar management and like food during the greater part of the year, was 5,235 pounds of milk, testing 4.35 per cent. fat, and yielding annually 261.8 pounds of butter. Between these cows there is a difference of 118 pounds of butter, which no expert judge could discover without actually testing them. Apply these facts to a herd of 20 cows and see how the difference grows. To further illustrate this, I draw upon the latest bulletin of our station, prepared by Mr. W. Woll. From it I learn of a herd of 30 cows in our State that each annually yields close to 400 pounds of butter, and the daily cost of winter feeding each cow is 19 cents. The data is given from another herd of eight cows of different breeding, where the annual butter yield is only 175 pounds per cow, and the daily cost of the winter feed, charging the latter at fair market prices, is close to 15 cents per head.

In these instances there is a difference of 225 pounds of butter per cow, which is produced at an extra cost of about \$5.40 for the winter ration. Such a difference as this we may credit chiefly to the fact that the cows in the first-mentioned herd have been bred for butter, while the others, according to the statement of the owner, has been bred for beef and butter. Special breeding tells. When it is considered that the cows common to many of our farms only yield 125 to 150 pounds of butter, the possibilities of breeding are evident.

To arrive at a true decision in regard to the value of different cows in the herd, it is necessary to keep a record in which the weights of milk given by each cow is noted, together with the richness of it as indicated by actual tests. In our stable we have blank sheets, covering weekly periods, on which the weight of both milkings from each cow is written, and from time to time the percentage of fat in the milk of each cow is noted. Under ordinary farm conditions it would only be necessary to weigh the milk weekly or, at the outside, monthly, and test both the morning and evening's milk of the same day for its fat percentage. By using the scales and the Babcock tester in this way, it becomes possible to know exactly what each cow is doing. To determine that, both the quantity of milk yielded in the year and the quality of it as told by the tester must be considered.

It is principally by placing the herd on a business basis and keeping an account with each cow that progress is made in breeding dairy cattle. By keeping the heifer calves from the best paying cows, and in due time installing them as members of the herd, surprising advances will be observed. Our records show that some of the present cows in our herd yield over 2,000 pounds more milk than their dams. Other factors may have helped this, but in the main it is due to better breeding. This year we have kept a heifer from the cow that has yielded 380 pounds of butter during the past year, and if the experiences and literature of breeding count for anything, she will surpass her dam as a dairy cow.

If, in addition, the choice of a sire is made on the milk and butter yields of his maternal ancestors, the certainty of breeding better cows is made doubly sure.—JOHN A. CHATG, Wisconsin Agricultural Experiment Station, Madison, Wis.

**Salt for the Dairy.**

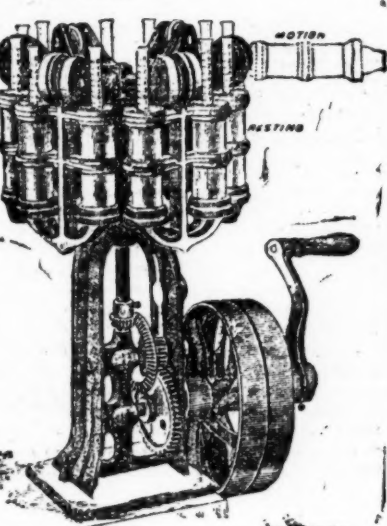
Salt should always be placed before the cattle in the dairy, and more than this, they should have a small proportion of salt in their feed every day. Prof. Jas. W. Robertson, of Guelph, Ontario, made a series of experiments which thoroughly convinced him that when the cows are denied salt for a week they will yield from 14 to nearly 18 per cent. less milk. In addition to this, the milk was of a very inferior quality, and such fluid will on an average turn sour in 24 hours less time than milk taken from cows who are given a sufficient amount of salt, both animals receiving the same treatment. This makes us realize more fully than ever that it is the small things which count more than anything else.

We propose to give away 100,000 watches as fast as our friends want them.

## A Milk Test.

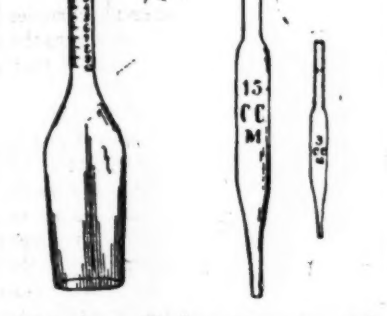
It has long been a settled fact that the dairyman must have a definite knowledge of the butter and cheese producing properties of the individual cows of his herd. Without this knowledge he may go on breeding from a poor strain for years. Scientific dairying has established one fact beyond a doubt, and that is that no one can estimate the value of milk by its appearance. You may own a good cheese cow and lose money on her in a butter dairy; it is equally true that it is needless waste to make cheese from the milk of some fine butter cows. What we need to-day is a simple, accurate tester, the price of which is within the reach of every dairy farmer. The centrifugal machine in some form is generally accepted as the most rapid and desirable.

We give cuts of apparatus which include all that is necessary for milk testing. It consists of a central axle around which revolve the pockets which hold the test bottles.



The bottles are made of well annealed glass. They are five inches long and one inch in diameter. The throat is so graduated that it is possible to gauge one per cent. of butter fat.

The pipettes are rather short in stem. The larger one is for measuring milk, the smaller for measuring acid. In applying the test insert the lower end of large pipette into well-strained milk, suck up the milk until the tube is filled a little above the mark; remove the lips and quickly place finger over the upper end, so the milk will not flow back. Very slowly loosen the finger until the milk reaches the mark, then press firmly again and take the pipette out of the vat. Slant the pipette and allow the milk to flow into the test bottle, blowing out the last drop. In completing this test, two liquids are used. The first is made by mixing equal bulks of rectified amyl-alcohol and commercial concentrated hydrochloric acid, specific gravity, 1.16 or above. The second is ordinary commercial concentrated sulphuric acid, specific gravity, 1.83.



After the milk has been accurately measured and turned into the test bottle, the smaller pipette is filled with a mixture of alcohol and acid and added to the milk. The test bottle is then nearly filled with the sulphuric acid and shaken vigorously, until it is well mixed and the curd about dissolved. It is well to use a cork in these test bottles, to avoid accidents. The bottle is then filled up with the same sulphuric acid and put into the machine, where it is revolved from half a minute to a minute. The clear butter fat will be found in the neck of the bottle, and its volume represents the per cent. of fat in the milk. These machines are of numerous sizes and varieties, all good, so we cannot recommend any one in particular. No farmer interested in dairy products can afford to be without one, as it will pay for itself the first year. They vary in price from \$27 to \$50, according to size. They may be obtained from any establishment dealing in agricultural implements, with full instructions for their use.

**Skimmings.**  
Never brand an inferior grade of butter. Do not leave new milk standing in impure air. Feed well and steadily; not too much bulky food like straw, nor of highly concentrated food. Cows exposed to the early and unexpected cold snaps are the first to go dry. This is an especially important fact to Winter dairymen.

The cow that gives milk which churns quickly is one for a breeder to keep. No one can make other than salty butter if the milk has to be churned an hour or more.

In feeding roots be very careful to have them as free as possible from clay or other gritty substances. A careful farmer digs these in dry weather. A good way to prepare this forage is to put it in a box and chop it with a spade.

The Babcock Tester shows that the morning's milk is richer than the evening's. This is because no energy was expended during the night in exercise, and is a strong argument in the hands of those who believe in keeping up milk cows.

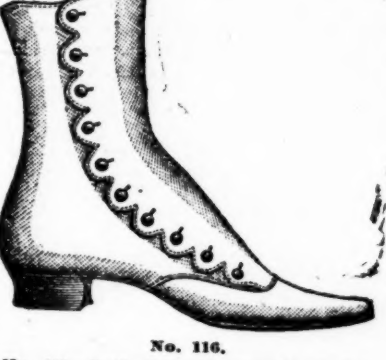
## THE HOUSEWIFE'S DEPARTMENT.

We offer below a large assortment of household articles for the special benefit of our lady readers. In the preparation of this list we had in view particularly the wants of wife and daughters. In making up the assortment we have expended a great deal of time and pains in the examination of the largest stocks of goods in the New York market. We have thus been able to secure many things not to be found at all in our country stores, and in all cases we have aimed to save our patrons at least 40 per cent. upon retail prices for the same class of goods.

Everything here offered will be found to be of the very best quality and of the largest value for the respective prices given. It will be noticed that we have given the price and postage separate in the case of everything sent by mail. In those cases where postage is not named, articles will be sent by express to the nearest express office, except where it is stated "postpaid."

Where postage is given our patrons will understand that the article is mailable, and that we will send it postpaid when the specified postage is included. In the case of these articles we charge nothing for the cost of packing and handling, but simply ask the average postage to reimburse us for the stamps required.

**LADIES' SHOES.**



No. 116—Ladies' Bright Dongola Walking Boots; common-sense heel; sizes, 2 to 8; width, A to E. Sent postpaid, to any address to subscribers only..... \$2.40



No. 117—Ladies' Extra Quality Bright Dongola Walking Boots; common-sense heel; patent-leather tip; sizes, 2 to 8; widths, A to E. Worth \$2.75. Sent, postpaid, to any address to subscribers only..... \$2.50  
State size and width when ordering. Sizes in stock, 2 to 8; widths, A to E.

**LADIES' UNDERWEAR.**

These goods are only sent to subscribers of THE AMERICAN FARMER at these prices. All our underwear is well made of excellent quality muslin. The garments are all full sizes and shipped to order.

**CORSET COVERS.**



No. 118 is a very handsome Cambric Corset Cover; V-neck; trimmed with Hamburg insertion embroidery and hemstitching. Postpaid to subscribers only..... 45c



No. 119 is a neat Cambric Corset Cover; neck and yoke handsomely trimmed with Hamburg embroidery and tuckings. Postpaid to subscribers only..... 60c



No. 120 is a fine quality Cambric Corset Cover; V-shaped neck; handsomely trimmed with fine Hamburg embroidery and feather stitching. Postpaid to subscribers only..... 85c  
For Corset Covers state bust measurement; sizes in stock, 32 to 42 bust.

**MUSLIN DRAWERS.**



No. 121 is Ladies' Muslin Drawers, with cambric ruffle and cluster tucking. Prepared to any address to subscribers only..... 50c  
State length, and whether open or closed are wanted.

## NIGHT ROBES.

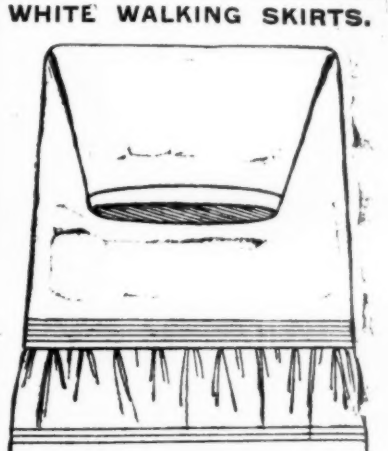


No. 121 is a Muslin Night Dress; Mother Hubbard yoke; well made; full width and length. Postpaid to subscribers only..... 85c

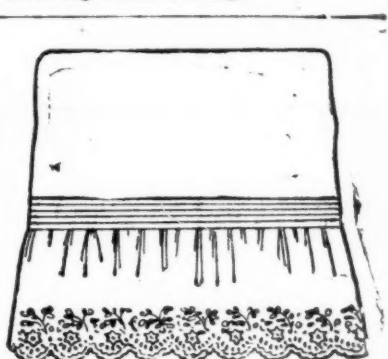


No. 122 is a very neat Muslin Night Robe; yoke tucked and trimmed with fine Hamburg embroidery and tucks; deep cuffs; trimmed in Hamburg edge; full width and length. Postpaid to subscribers only..... \$1.15  
Be sure to state size when ordering.

**WHITE WALKING SKIRTS.**

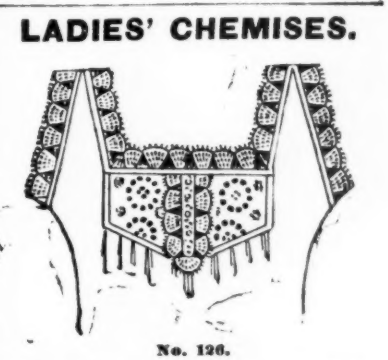


No. 123 is a fine Muslin Skirt, with flounce and cluster tucking. Sent, postpaid, to subscribers only..... 75c  
State length when ordering.



No. 124 is a fine Muslin Walking Skirt, with handsome ruffle of embroidery at bottom and cluster of tucks above. Sent, postpaid, to any address to subscribers only..... 90c  
No. 125 is same, of better quality and with deeper flounce. Postpaid to subscribers for only..... 45c

**LADIES' CHEMISES.**



No. 126 is a Ladies' Muslin Chemise, trimmed with machine torchon lace and Hamburg embroidery; very handsome and showy garment. Postpaid to subscribers only..... 69c



No. 127 is a Muslin Chemise, with pointed yoke of fine Hamburg embroidery. Postpaid to subscribers only..... 75c  
State size when ordering.

**LADIES' TAILOR-MADE SUIT.**



Pretty tailor-made suit of all wool, flannel or sack cloth waist, neatly bound with braid, and three rows of skirt; colored tan, blue, gray, and black. Skirt 44 inches long, bust measurement 32 to 44 inches. Price..... \$4.75  
Postage 3c.





## FEEDING FOR EGGS.

## A Successful Poultryman Tells How he Secures Them in the Winter.

EDITOR AMERICAN FARMER: Much has been written in regard to feeding fowls in winter to obtain the greatest possible number of eggs when prices are always highest. Every person has a slightly different way and pet theories of their own, but the following method has always given me satisfactory results. I would impress upon the minds of those who desire a well-filled egg basket in winter the necessity of warm, dry, and sunny quarters for the fowls. I emphasize "dry," for of the two evils a damp henhouse is to be preferred to a damp one. The latter is a death trap for fowls. Artificial heat is not necessary, a degree of warmth sufficient to prevent the bird's combs from being frosted is all that is required.

For their morning feed I give a warm mash made as follows: One part boiled and mashed vegetables (small potatoes, beets, turnips or carrots, any or all are good), one part cornmeal or ground corn and oats, one part bran, one part barley meal. All this is mixed up with boiling water in common pails or buckets, the last thing before I retire at night, and the pails are covered with a cloth to retain the heat. It should be mixed as stiff as possible, not sloppy. Two or three times a week a tablespoonful of cayenne pepper is added to the mash. The barley meal is not necessary if it cannot be easily obtained. This mash, if properly made with boiling water, will retain its heat all night, and should be fed while warm as early in the morning as possible. A handful of powdered charcoal added to the mash occasionally is beneficial. Twice a week, instead of the mashed vegetables, I substitute clover hay or rowen cut in half inch lengths. Every farmer or poultryman should provide a quantity of second crop clover for his fowls. It is a great egg producer.

For the noon feed whole grain is best, either barley, oats, wheat or buckwheat. It should be scattered among straw, chaff or litter of any kind in order to give the fowls needed exercise in scratching for it. Exercise is one essential to a well-filled egg basket.

At night any of the above-mentioned grains are good, but I feed whole corn for the evening meal about five times a week. Some writers do not advise the use of corn, but I have never observed any injurious effects from it, if fed judiciously. As a rule, the larger and less active breeds, such as Brahmas and Cochins, should be fed less corn than the more active breeds, such as Minorcas and Hamburgs.

In addition to the above, pure water should be given daily, and the birds should have access to ground oyster shells and powdered crockery or gravel. When confined in winter quarters the birds are deprived of the bugs and insects which they obtain in summer, and animal food should be provided in some form. For a small flock of a dozen or so the scraps from the kitchen table will be sufficient. Fresh-cut bone is the best animal food extant, and a few dollars invested in a bone cutter will be money well spent to those who keep any considerable number of fowls. The Webster & Hannum bone cutter is the best machine I know of for converting bones into an edible form for fowls.

Green food is greatly relished by fowls in winter. It can be easily furnished by partly-decayed apples, squash, or pumpkins thrown into their pens. A good plan is to suspend a cabbage by a string from the roof, just high enough so they are obliged to jump for it.

The secret of a good supply of eggs in winter, if secret it is, is to give as much of a variety of food as possible, and provide a way for fowls to exercise by compelling them to scratch among chaff or litter for the grain that is given them. A little extra care and feed is all that is required to make the fowls the most profitable stock on the farm.—EMERY S. PUGH, Utica, N. Y.

## American Buff Lophorn Club.

The American Buff Lophorn Club will hold its annual meeting at Mechanics' Hall, Worcester, Mass., Thursday, Feb. 2, 1893, at 3 p. m. There is over \$65 in cash specials offered on Buff Lophorns. All members and all wishing to become members are earnestly requested to be present. Dr. E. A. Sheldon, President, Oswego, N. Y. A. W. Gardiner, Secretary, Springfield, Mass.

## Poultry Topics.

No class of fowls can be kept more cheaply than geese at any season of the year. They like all kinds of vegetables, and thrive well in winter on apples and clover hay. They are really profitable to keep about the farm.

Pullets if kept separated from the male birds during cold weather when mated up in February are more likely to prove better layers and remain vigorous longer than those kept in a general flock the winter through. There is no question in my mind of the value of this practice. It is also done with pigeons of high breeding with good results.

Read our great watch offer on another page and get up a club of six.

## The Drinking Fountains.

Cold weather is the hardest time of the year for the poultry raiser. It being the most profitable for the production of eggs, it behooves him to pay close attention to his fowls by looking after their comfort, feed, and drinking water. The last named often proves a bugbear to the beginner, and it is for his benefit that this is written.



FIG. 1.

The varieties of fowls which have long wattles and combs, like the Brown Leghorn, are the ones most troubled; their combs or wattles get wet in drinking, freeze, and the consequence is that they will have to be cut off. This, of course, mars the beauty of the fowl, and the best way to go about the matter is to take steps to prevent them freezing.

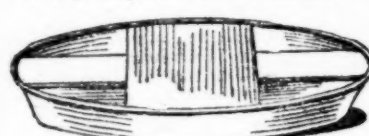


FIG. 2.

In Fig. 1 we have what a good many people use to supply the drinking water. The fowls in drinking from this are very apt to get their combs or wattles wet. The difficulty is somewhat overcome by using boards to cover the receptacle, as shown by Fig. 2. In this case the fowls only have four small apertures at which to secure water. When this is used the pan should be well filled and kept so, as the fowls cannot reach deep down.

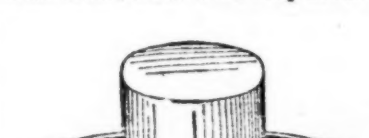


FIG. 3.

Fig. 3 is a smaller pan with an inverted can—often an empty tomato or corn can is used—at which the fowls can safely drink. The can has a small hole near the bottom, is filled with water and quickly inverted; the water will rise to a certain height in the pan and remain at that distance. Fig. 4 is an earthenware vessel with a small aperture, below which is a trough-like arrangement. It is a rather good fountain and can be bought at a low price, 35 cents per gallon vessel. Fig. 5 is a V-shaped trough arrangement, which is quite largely used. The fountain should not be over two inches wide to be of use in cold weather. It is made by hollowing a billet of wood, and is preferred by many poultrymen to other drinking fountains.



FIG. 4.

With all these fountains care should be used. If the fowls be watered three times a day it is a sufficiency. If the water be allowed to remain in the fountains it is apt to freeze, and this is liable to result in the bursting (Fig. 4).



FIG. 5.

We propose to give away 100,000 watches as fast as our friends want them.

Marketing eggs and dressed poultry in new baskets, surrounded with clean linen, means better sales and quicker accomplishment than if you lack the neatness of display with identically the same articles. Farmers who practice cleanliness shows in outward appearance the kind of a farmer he is. Pride in some things, even about a farm, has its good results and ultimate reward. Don't be slovenly; it is easy to form the habit, and harder to break from it.

Any of our young friends can earn a watch and chain in an hour by getting six of their friends to subscribe for THE AMERICAN FARMER, at 50 cents each.

We notice that the present market quotations on cold storage eggs is 30 and 35 cents per dozen. The farmer who stored in dry salt several thousand dozen when eggs were plentiful last Spring, selling at 10 and 12 cents per dozen, is now reaping his profit. Many pack eggs in salt during the late Spring and they remain fresh over winter. They should be packed with the small end down and imbedded thoroughly without touching one another.

## THE ORCHARD.

## Cullings.

All Russian apples are said to do well in Vermont.

Both plum and pear trees do best on a sandy clay loam, richly fertilized, and given clean cultivation.

Young chestnut trees are being planted in New Jersey in large areas, and nut culture will soon be an established industry in our country.

The Kieffer pear has wonderful keeping and canning qualities, and it is said that it may be shipped around the world if necessary to find a market.

Somebody has said that if the seeds of apples and pears are planted in a flower pot when the fruit is eaten they will be large enough to plant out the next summer or fall.

The peach trees of the country cover 507,000 acres, and the value of the crop is \$76,000,000. Upward of \$90,000,000 were found invested in peach growing in the census year.

The birch advances nearer the North Pole than any other tree, and the spruce is not far behind it. No evergreens were seen in North Greenland by the Peary expedition. The spruce has been found on the islands north of the Lena River as far as 75 degrees.

The California orange crop is reported to be very heavy and unusually satisfactory. The damage by wind and frost will not, so far, exceed five per cent. of the total crop, which will probably be fully 7,000 carloads, as against 2,800 last season and 4,600 the season previous.

Someone says, with regard to kerosene emulsion, that it is something to be prepared and handled with care, or it will work more harm than good. This is quite true. It is possible to make it so that it will effectively kill insects and fungus diseases, and at the same time kill the tree or shrub or whatever it is applied to.

## About Apple Culture.

Mr. Samuel Hartwell, of Lincoln, Mass., read an interesting article on apple culture at a meeting of Boston Market Growers. He brought up some excellent points, among which are the following:

"No one should undertake the growing of apples who does not have a natural liking for the details of such work; for as himself, he took great pleasure in attending to the wants of his orchard, and found it much pleasanter as well as more profitable to grow and pick a barrel of apples than a barrel of potatoes."

"Apples need good, well-drained land; they are not very particular as to the soil they grow in; almost any good land will answer, if not wet nor too poor."

"The region in which the apple thrives best is between latitude 40 degrees and 45 degrees, so that we are about in the middle of the apple zone, and our climate and soil are admirably adapted to growing it in perfection."

"In planting an orchard it pays well to buy good, thrifty trees, and to buy them of a responsible nurseryman who is careful in keeping different varieties correctly labeled. The best trees are the cheapest to buy in the end, even if they do cost a little more at the start. Poor trees are dear at any price."

"He would plant 35 to 40 feet apart, and plant some crop, such as potatoes or beets, between the rows for a few years till the trees begin to spread so as to shade the land. When setting the trees he liked to trim the bruised roots a little with a knife, and to spread out the roots well in the ground, throwing earth between them. Be careful to set the trees in straight rows both ways so that the cultivator can work both ways and the orchard may have a neat appearance; put no manure near the roots; tread the land around them after planting."

"The trees should be pruned yearly so as to have a spreading head high enough for a horse to walk under them, and yet low enough to be easily picked with a ladder 18 feet long. Pruning may be done at any season, but he liked to do it on pleasant days in winter and early Spring, when there are no leaves to obstruct the view of the branches, and when there is likely to be more leisure time for doing the work properly. He would select such varieties as are well known to suit the locality as to soil and market, bearing in mind that a good orchard, well cared for, will last for a lifetime, and therefore that it pays well to do everything in a thorough and business-like way."

## Mulching.

Mulching is practiced to some extent, but it is believed that the real advantages are not fully understood. A writer has said that after many years he finds the advantages greater than he had formerly supposed possible. Some of the benefits may be stated as follows: It adds to the humidity of the soil and very greatly retards evaporation of moisture. When of considerable thickness it keeps down weeds, and when the soil is not hard, saves some hoeing. When mulch is applied to raspberries, gooseberries, and blackberries, its beneficial effects are equal to the difference between a good yield and a complete failure. In some instances mulching has been applied to sweet corn and pole beans after the first hoeing with distinct success. But a mulch need not be confined to Summer practice. Its application in winter prevents frequent freezing and thawing, and is therefore especially beneficial in the case of Fall set vines, plants, trees, and shrubs, which adds very much to successful Fall planting. Do not forget to mulch where it is desirable.

Boys, you can get a good watch and chain for nothing if you will send us a club of only six subscribers for one year, at 50 cents each.

## ENTOMOLOGY.

## A Practical Science Which Maryland and Other Farmers Should Study.

EDITOR AMERICAN FARMER: It was formerly the common opinion among farmers and a great many other people that Entomology, or the study of insects, was a very profitless vocation, or even a useless pastime, and that "bug-hunters" were generally men of little common sense, and of little use to the world except for the amusement of the small boy who followed him about out of curiosity. But that time has happily passed away along with many other mistaken notions of a by-gone generation. Entomology now takes high rank everywhere along with the sisterhood of sciences; and Economic Entomology, or the study of injurious and beneficial insects, and the means of preventing the destruction of crops, is one of the most practical to the agriculturist and horticulturist. This statement will have more force when it is remembered that insects annually destroy two or three hundred thousand dollars' worth of crops in this country, half or three-fourths of which could be saved at a trifling cost. The writer has seen whole fields of wheat, corn, and other crops totally destroyed by these little foes. A thousand dollars' loss in a single county is no uncommon thing in many States. Maryland is by no means exempt. My own observations have led me to believe that last year many thousands of dollars were sacrificed to these little enemies, sometimes small in size but immense in numbers. For example, one prominent farmer wrote last Spring that he had lost about 50 acres of clover from the ravages of the clover-leaf beetle, an insect which has usually not been very injurious in this State heretofore. But this year it was plentiful on the grounds of the Maryland Agricultural College and Experiment Station. Also, from many parts of the State and bordering Counties of Virginia came reports of great damage to the strawberry crop by a little beetle scarcely more than a tenth of an inch long. One man who is a large tomato grower wrote that half his early tomatoes were destroyed by the tomato worm. It was very injurious to early tomatoes in this County, and later did serious damage to corn by eating into the green ear. Great damage was done by several insects, especially late in the season, to a number of crops on the State Experiment Station grounds. Certain crops which were being experimented upon were badly injured that not only was the crop itself greatly damaged but the results of the experiments rendered nearly valueless.

The injury is generally far more than we suppose. A tenth of the crop is often, or we may say, generally destroyed by insects; and we take but little notice of it, yet if a tax of 10 per cent. were levied upon a man's crop for the support of the Government, or even the education of his children, he would not submit to it so graciously as he does in paying his tithe to the insects; and, besides, the greater part of this loss can be prevented at a trifling cost. But it requires a knowledge of the life, history, and habits of insects, and many farmers are not willing to devote sufficient time to the subject to successfully combat their insect foes. However, farmers' sons and farmers' daughters might readily enter upon the fascinating study of insect life, and there is no better time than the winter to begin by reading one or two good books upon the subject.

Maryland seems somewhat behind her sister States with regard to the attention given to entomology by the State. In about 35 other States entomologists are employed in connection with the Agricultural Experiment Stations or Colleges, and some of the States employ an entomologist besides. Some have had entomologists for a score of years, and have paid them good salaries. But Maryland is doing almost nothing in this line. Last year the writer prepared one bulletin on "Wheat Insects" for the Experiment Station, and gave practical instruction to the junior and senior classes in the Maryland Agricultural College. But no provision has been made for continuing the work at the College or Station, yet the hordes of insects will still go marching on. If instruction were given in Economic Entomology to the students of agriculture in the State College, and careful experiments carried on at the Station, and the results published in bulletins or the agricultural press of the State, many thousands of dollars could be saved to the farmers annually. The entomologist could also give practical talks or addresses before the farmers' institutes, and thus help to disseminate the results of his investigations.—E. W. DORAN, Ph. D., College Park, Md.

Read our great watch offer on another page and get up a club of six.

What Kerosene Emulsion Has Done.

In an address by E. A. Forbes before the Association of Economic Entomologists he said: "Kerosene emulsion has been fully studied as to methods of preparation with various kinds of soap, hard and soft, and with milk, by Cook, of Michigan; has been used with success by Fletcher, of Canada, for the cabbage plutella; by Fernald, of Massachusetts, on the red spider; by Dr. Jabez Fisher, of the same State, for the pear tree psylla; by Richmond, in Utah, for the cabbage flea beetle, and by Osborn, in Iowa, for plant lice of all descriptions. Applied to the asparagus beetle by Smith, in New Jersey, it killed a large part of the larvae, but not the eggs. A notable idea in the application of kerosene has been worked out by Goff, the experiment station horticulturist in Wisconsin, who has devised a pump and nozzle by which kerosene and water are mixed immediately at the nozzle in any desired proportions, and thrown out as a fine spray without the necessity of previous emulsification."

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## THE MARKETS.

## Wool.

Bozzen, Jan. 28.—The market is on a firmer basis, and more activity is reported. The wool in the market is that there is little change of value week to week, and at the close the general tendency was toward higher prices. Manufacturers are busy, and the mills are consuming a large amount of wool, sending buyers into the market frequently for the raw material. Holders are very confident, and there is no doubt but that the lowest prices have been paid for wool during this clip, and the future to them is full of promise. The importations from abroad will not be large, and it is well known that the supply in the country is not large.

The leading feature of the market has been the firmness shown by the holders of fine washed fleeces and the higher prices obtained. A better demand is also reported.

Territory wools of all kinds have had a good demand, and prices are on a good, steady basis. Buyers are trying to break the market, and the close of the week shows that a portion of these holdings are coming back on the market, but the supply continues to buy right along. While prices are no higher, they are on a steady basis, and holders are showing more confidence. Fullest wools are selling well at steady prices.

Australian wools are firm and steady, and are having a good sale. No change is reported in carpet wools.

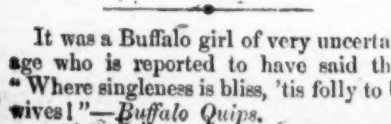
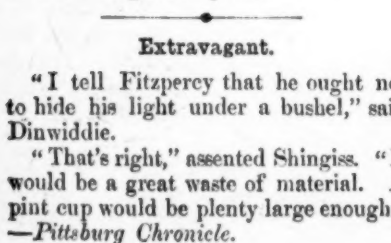
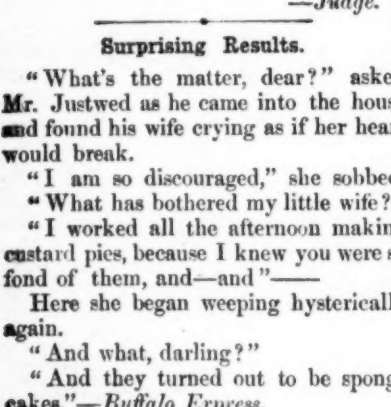
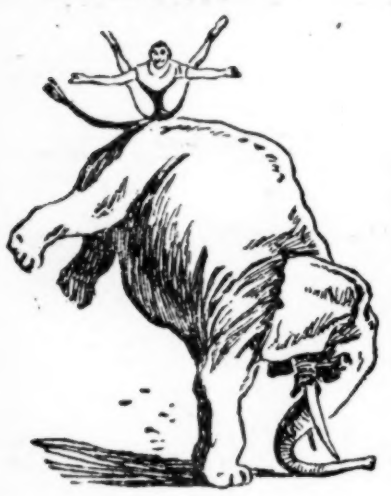
Ohio and Pennsylvania Fleeces—No. 1 fleeces, 30s; No. 2 and 3, 28s; No. 4 and 5, 26s; No. 6 and 7, 24s; No. 8 and 9, 22s; No. 10 and 11, 20s; No. 12 and 13, 18s; No. 14 and 15, 16s; No. 16 and 17, 14s; No. 18 and 19, 12s; No. 20 and 21, 10s; No. 22 and 23, 8s; No. 24 and 25, 6s; No. 26 and 27, 4s; No. 28 and 29, 2s; No. 30 and 31, 1s; No. 32 and 33, 1/2s; No. 34 and 35, 1/4s; No. 36 and 37, 1/8s; No. 38 and 39, 1/16s; No. 40 and 41, 1/32s; No. 42 and 43, 1/64s; No. 44 and 45, 1/128s; No. 46 and 47, 1/256s; No. 48 and 49, 1/512s; No. 50 and 51, 1/1024s; No. 52 and 53, 1/2048s; No. 54 and 55, 1/4096s; No. 56 and 57, 1/8192s; No. 58 and 59, 1/16384s; No. 60 and 61, 1/32768s; No. 62 and 63, 1/65536s; No. 64 and 65, 1/131072s; No. 66 and 67, 1/262144s; No. 68 and 69, 1/524288s; No. 70 and 71, 1/1048576s; No. 72 and 73, 1/2097152s; No. 74 and 75, 1/4194304s; No. 76 and 77, 1/8388608s; No. 78 and 79, 1/16777216s; No. 80 and 81, 1/33554432s; No. 82 and 83, 1/67108864s; No. 84 and 85, 1/134217728s; 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## AN ELEPHANT PERFORMANCE.

udden and Unexpected Ending of an Acrobatic Feat.



## A Four-Sighted Man.

Wagg—Do you know, I think that Batley is a singularly foresighted man. Wooden—Why, on the contrary, I have always thought him exceedingly shortsighted, if not positively dissipated.

Wagg—I used to think the same, but I have just discovered that he is marvelously foresighted.

Wooden—How did you discover it?

Wagg—Well, I saw him trying to get into the club the other night, and he turned and said to me: "Say, I wish you'd tell me which one of these keyholes I want. There seems to be four."—*Boston Courier.*

## A Tramp Recipe.

Housekeeper—You promised that if I'd give you a good meal and a suit of old clothes you'd tell me how to keep the premises free from tramps.

Tramp—Yes, mum, an' I'm a man o' me word, mum, an' I'll keep me promise, although that meal wasn't no great shakes, an' this suit ain't much of a fit. But I'll tell ye.

"Well, what course an I to pursue?" "Never give 'em anything, mum. Good-day, mum."—*New York Weekly.*

## A Politician's Character.

The character of a politician is thus amusingly illustrated by the famous pulpit orator, Abraham, of Santa Clara: "That man is not far wrong who looks for something mysterious in the first letter of the word 'Politician.' This letter fits in every saddle. In its usual form it represents a 'p'; when reversed a 'q'; turned upside down it becomes a 'b'; and the latter on being turned round is changed into 'd.' And perhaps a politician ought to be so constituted as to run easily into any mold."—*Schulblatt.*

## Splinters.

Eastern Young Sunday-school Teacher—Now, boys, what must we all do to go to heaven?

Bright Boy—Die.

There are too many singers in the choir who do not know any more about the gospel they sing than the town pump does about the taste of water.—*Rain's Horn.*

One of the hardest times to love an enemy is when he seems to be prospering like a green bay tree.—*Rain's Horn.*

What's a secret good for, anyway, if not to tell?—*Somerville Journal.*

## Sorely Tried.

The Judge—You've been before the court several times before, haven't you. Thirsty Theodore—Eight times. The Judge—Well, how do you find it. Thirsty Theodore—Rather trying.

## Tim's Full Name.

A negro, familiarly known as "Tim" White on one occasion found it necessary to record his full name. The not unnatural supposition that "Tim" stood for Timothy was met with a flat denial. "No, sah! My right name is, What-timorous-souls-we-poor-mortals-be White. Dey jes' call me Tim fo' sho't, sah!"—*Rosencof.*

## A Surprising Procedure.

Tommy Cabbage (at the Sunday dinner table)—Mrs. Tillinghast had her knitting at church this morning. Mrs. Cabbage (shocked)—What on earth was she knitting in church? Tommy—Her brows.—*Judge.*

## The Husband's Choice.

"One strong point about this broom," said the grocer, "is the handle. It is made of tough, seasoned wood. You could knock a man down with it and not break it."

"I think," observed Mr. Enpeque, timidly, "I would—hum—prefer one with a pine handle, if you please."—*Chicago Tribune.*

## Sukey's Sign.

A resident of Dayton, Pa., was surprised the other morning when he went to milk his cow to find a placard attached to her horns, which bore the following inscription: "Go down and pay for the cabbage I devoured last night."—*Chicago Herald.*

## The Feud Buried.

"Do you quarrel with your neighbor still about his dog coming over into your garden?"

"No; that's all over now."

"Buried the hatchet?"

"No; buried the dog."



He reared the goat, and the buttin did hde rest.—*Life.*

It was a Buffalo girl of very uncertain age who is reported to have said that "Where singleness is bliss, 'tis folly to be wives!"—*Buffalo Quips.*

## THE SITUATION.

What Farmers Must do to be Saved—Raise Less Staples and More Fancy Products.

EDITOR AMERICAN FARMER: Farmers have been so persistent in laying all decline of farm product prices and also of land to National or State legislation, it seems to me we had better look to the modern agriculture and see if we are doing the best we can to advance our calling, and demonstrate the fact, if such be the case, that the farmer himself is perfect. At the close of the late civil war we had many millions, made so by the opportunities that came to them, and a still greater number, yes, regiments, to single individuals that were poor and dependent upon their labor only for the necessities of life to support themselves and families. The trades were full of help. The workshops and mills could take no more, their production had to be curtailed until agriculture, the first and last chance for labor, could absorb the idle millions of our Nation. This opened up a vast amount of farm production without increasing consumption of farm products by purchase from the farmer.

A glut in the markets of the world followed this over production, and the main crops of grain and wheat have had to become so depressed in price that they cease to be profitable, and in many localities their production is attended with actual loss. Legislation is not responsible for this part of trouble, although, heaven knows, she has much to answer for. What is the duty of farmers to-day? Manifestly, we should produce more for less money, and this can be done by aid of better farm implements or machinery—this will add customers, because it adds to laborers' numbers in the mills and workshops. But another very practical way is to increase the production of luxuries upon the farm and lessen the amount of main crops until the scarcity of wheat, oats, corn, pork, and beef, as well as horses and sheep, shall, by the inevitable law of supply and demand, come back to remunerative prices. Nothing but actual starvation facing the rich and powerful can extort money from them freely. Their heads or hearts are never on the side of the poor man's interests, but they feel it is their province and destiny as well as duty to skin them.

A rich man is of no earthly use in this world unless we can get hold of his money. We can reach it best and easiest through his stomach. Tickle his palate and he will open his purse freely. Less than 20 years ago an enterprising but retired farmer moved in our little city here, and for pasture, profit, and pleasure he started a little one-acre truck garden, and raised luxuries only, and supplied our retail grocers with all they could sell daily. At that time 10 bushels of strawberries could not be sold in one season in this place, while now the trade has so increased that a thousand bushels will not supply the demand. Sweet corn by the ear, fresh picked every morning, would not sell hardly at all, while now wagon loads are needed every day. Raspberries, blackberries, grapes, and every kind of fruit are in great demand, and instead of that one little garden of one acre we have over 20 farmers engaged in farming of this kind, using 10 to 50 acres of land to supply this market alone. What has been done here can be done in every city or large village in America. Make your production gild edge in every conceivable manner. Put them up for market so dyspeptic stomachs will not repel them, and you can then tap the money bags and secure a constant stream of silver and nickels which will pay mortgages for you faster than main crop farming. Some of these specialties produce enormous amounts of money per acre.

Let me describe one only that will bring over a thousand dollars per acre each season, that is celery plant. Select good, rich, black, muck soil that is moist, if you have it; if not, bring it to that condition with barnyard manure and level cultivation. Then plow early and deep, and every four or five days give a good, nice, thorough harrowing to kill weeds, and keep this up constantly for weeks, and if possible kill all the weeds in the soil before you ever transplant your celery. Start your celery early in hotbeds, and as soon as warm weather comes to stay then transplant it from six to eight inches apart each way, the ground all being level and as nicely fined down as possible. After the plants get started into thrifty growth then take boards or planks 12 inches wide and 12 feet long and make boxes 6 by 12 feet, one foot high; there is then no waste lumber. Set these down over the celery plants six feet apart each way, and leave alleysways at side and end of boxes, because the alleysways are just as good for bleaching purposes as the boxes, and you will be astonished to see how soon the celery tops will fill the boxes and stay so green on top and stalks perfectly white and tender. Much labor, time, and money is saved by this method over the old system of trench farming for this plant. Every acre of celery ought to be worth a thousand dollars or more, and usually does bring it in this climate and soil. In 100 days it is large enough to commence to sell, and each plant will readily sell for a nickel. It can be left out until cold freezing weather comes. You can then store it away in good vegetable cellars and hold it for later trade. The necessary requisitions for this is first good tillage on rich soil, and then plenty of moisture. Celery must have moisture, and for that reason with level culture none of it is lost. Onions, squashes, lima beans, and thousands of other things can be utilized for truck farming; but I must close this chapter.—*H. TALCOTT.*

## Have You Asthma?

After trying every other remedy in vain, thousands have been cured by using Schiffmann's Asthma Cure. Trial package free of druggists or by mail. Address Dr. R. Schiffmann, St. Paul, Minn. Mention this paper.

## HOME AND FARM MORTGAGES.

An Effort to Have the Census Bureau Undertake Periodically an Inquiry Concerning Them.

EDITOR AMERICAN FARMER: Three years ago the Western Economic Association of St. Louis, appealed to the voters of the United States to petition Congress to have the Eleventh Census show the mortgage indebtedness and tenure of farms and homes, the argument being that such an inquiry would tend to give the ratio of the distribution of wealth. The investigation is nearly finished, and it will have the percentage of owned and rented homes and farms in every city and County in the United States. Enough data have already been published to predict a most startling showing. Briefly stated, three-fourths of the city populations live in rented houses, and in some cities and States it runs as high as 90 per cent. Of the remaining fourth, one-half own their homes, but under mortgage to their full credit value; that is, they are virtually tenants. This means that under the industrial feudalism now developing seven-eighths of our city population are liable to be turned out of work at the end of the week, and with their families into the streets at the end of the month.

The condition of the agriculturists is but little better. One-third of the farmers of the entire country are tenants; one-third own their farms, but under mortgage to their full credit value, thus rendering them virtually tenants; and only one-third own their acres free from debt. By comparison with the census of 1880, there has been an alarming increase in tenant farmers. In Illinois, for example, the growth was from 24 per cent. in 1880 to 36 per cent. in 1890; and in Montana it was tenfold. In every State in the Union the percentage has increased in the last decade; and more startling still, in nearly every State the absolute as well as the relative number of farms has decreased, though the acreage has increased, showing the concentration of farms into fewer hands, and the remorseless reduction of the real tillers to the condition of serfs. The investigation demonstrates the truth of the assertions "that the rich are growing richer and the poor poorer," and that the American workingman is becoming the American slave, and the American farmer the American peasant.

Passing by the causes of this revolutionary tendency, it is of the utmost importance that this inquiry should be repeated every 10 years, so that by comparison we may discover in which direction we are moving. The interrupted duration of the Census Bureau has hitherto made permanent legislation on this subject impossible, as the Bureau has existed for only about six years of each decade, every census requiring new legislation and a reorganization with new men. But there is now before Congress a proposition to make the Bureau permanent by continuing six or seven heads of departments and the necessary staff of clerks in place during the four intervening years, and employing them on collateral statistical work, forming an experienced nucleus around which to reorganize the Bureau at the beginning of each decade. It is not the creation of a new Bureau, but the permanent continuance of an old and constitutional one. There is no doubt that it will result in better statistical work at less cost than by the present wasteful and unskilled method. But the general law effecting this reform contains no provision for a repetition of the "home and farm inquiry." By incorporating such a provision now the inquiry will be permanently established without any further legislation, and if a sufficient public demand were made such a clause would be inserted in the bill.

With a view to evoking such a demand the Western Economic Association of St. Louis issues this second appeal to the people of the United States. The practical step is for any organized body to adopt resolutions of the following tenor:

Whereas there is now before Congress a proposition to place the Census Bureau on a permanent basis; and

Resolved, That we favor the permanent establishment of the Census Bureau, and request that it shall be made a part of its permanent duties to collect data at each decennial period to show what percentage of the people of the United States occupy their own homes and their own farms, and what percentage are tenants; and of those occupying their own homes and farms, what percentage have their property free from debt, and what is the value thereof; and of the homes and farms under mortgage, what is the value thereof, and what percentage of the value is so mortgaged.

Resolved, That the Secretary of this meeting be requested to transmit a copy of these resolutions to the Congressman from this district, and to the two Senators from this State.

The appeal is not political, but purely economic, and is made to you personally—the reader.

The next time you are in a meeting of the Knights of Labor, trades and labor union, Farmers' Alliance, the Grange, political meeting, religious body, or what not, introduce resolutions of the foregoing character and have them adopted. Also, write your Congressman a personal letter on the subject.

As the bill will shortly become before Congress, prompt action is necessary.—*B. C. KEELER, Secretary, Western Economic Association.*

Whereas we believe it to be properly the business of such a Bureau to show the distribution as well as the production of wealth; therefore be it by [insert here the name of the organization adopting the resolutions and the locality]

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## OUR DWINDLING FORESTS.

Hard Wood Resources Nearly Exhausted by the Growth of Manufactures.

According to official statements the forest area in Ohio was reduced from 53 per cent. of the whole area of the State in 1850 to 17 per cent. in 1880, and in Indiana the forest area declined in the same time to 19 per cent, such shrinkage placing these States with the countries of least forest area in central Europe. The scarcity and deterioration of the hard wood timber supplying numerous industries in these and the adjoining States in the North have been for some years a matter of grave concern to those engaged in them. At the 10th annual convention of the Furniture Manufacturers' Association, held in Cincinnati in 1881, and at the 13th meeting of the National Carriage Builders' Association in 1885, the complaint was raised that the supplies drawn from the territory named above were becoming scarce, while a good quality of timber was beyond reach. These are certainly significant admonitions from the representatives of important industries, which have to rely on the timber resources of our forests and upon which thousands of families of artisans and laborers are depending for support.

North of the Ohio River the black walnut and white ash can be said to be extinct as far as practical purposes are concerned, and the better qualities of white oak are now wanting. At a still more rapid rate is the destruction of the forests of white pine in Pennsylvania have been almost completely stripped of their timber. In New York and the New England States this pine has almost hopelessly disappeared, with the exception of Maine, where, under a wise system of protection, the second growth is of great promise and already contributes considerable supplies.

The most extensive and alarming instance of the despoliation of a timber wealth, considered inexhaustible only a few years ago, is presented by the immense pineries of the Northwest, which seem destined in the near future to complete destruction. With their timber wealth in a vast body, made easy of access by improved methods of labor and transportation, and in close connection with the treeless region in the heart of the continent filling up rapidly with an agricultural population, in the States of Michigan, Wisconsin, and Minnesota the lumbering industry has assumed the largest dimensions, causing a drain upon the resources of their forests which will in a short time cease to respond to further demands. The amazing activity with which this industry is carried on in the pine lumbering regions of these States can be realized from the statement of the *Northwestern Lumberman* [Chicago] that the amount of lumber produced in 1889 reached the aggregate of 8,305,833,277 feet, board measure, to which is to be added the output of shingles in the same period of 4,698,975,800 pieces, swelling the consumption of white pine lumber from that section to fully 9,000,000,000 feet, board measure, in one year. The amount of merchantable white pine standing in lower Michigan, estimated in the census reports of 1880 at 29,000,000,000 feet, during the subsequent 10 years has been reduced to one-tenth of that amount, according to the *Chicago Timberman*. Thus the stock left would just suffice to supply the material for first-class lumber produced in a single year in the white pine forests of the Lake region.—*Engineering Magazine.*

Any of our young friends can earn a watch and chain in an hour by getting six of their friends to subscribe for THE AMERICAN FARMER, at 50 cents each.

## Canada Wants Immigrants.

Representatives of all the Canadian transatlantic steamship lines held a conference at Ottawa, Canada, recently, with the Minister of Agriculture and the Minister of the Interior in regard to immigration and quarantine matters. The former see in the prospect of a prohibition of immigration by the United States a great opportunity for diverting the stream of immigration toward the Dominion. Although Canada has ample room for newcomers, the Government, however, is not disposed to encourage indiscriminate immigration from Europe, in view of the possibility of a cholera outbreak next season.



MRS. CHARLES FRANK, North Syracuse, N. Y.

## CURED

Of Neuralgia, Kidney and Liver Troubles, Gall Stones, Nervous Prostration, and Female Weakness in their Worst Form.

MRS. CHARLES FRANK.

Dr. A. Owen, Chicago, Ill.—Dear Sir: After being worn out with pain for five years, and doctoring all those long years, I chanced to see Mrs. Ella Trautman's statement in *The National Tribune*. As I read it I thought, as a last resort, I would try one of your Electric Belts, for I had despaired with physicians in Syracuse, only receiving temporary relief, and began to think there was no hope for me. I purchased one of your No. 4 Electric Belts and found relief at once. I could feel my diseases gradually disappearing. It is now seven months since I commenced wearing the belt, and I have not taken a drop of medicine since the first day I commenced wearing it. I have worn the belt according to instructions every afternoon since I received it, and to-day I am thankful to you for your wonderful discovery. For two or three years I suffered with dyspepsia; had terrible pains in my side; my food refused to digest. Now I can eat almost anything without any distress in the stomach.

For two long years I did not have a good night's sleep. I was so dreadful nervous it seemed as if I would be wild. I used to tell my husband if I could not get rid of this nervousness I did not wish to live, as life was almost a burden. Worn out and completely discouraged, I at last found relief in your No. 4 Electric Belt, and that is more than doctors did for me. I also had severe pains in my head. At times I could hardly see one go around the room. I cannot tell how much I suffered, but the belt has taken away all pain and nervousness, and I can sleep good once more. When I began wearing the belt I could hardly walk around the house, but after the first week I began to get stronger and have continued to improve ever since, until to-day I feel like a new person. The belt has given me new life and I can enjoy company once more. Doctor, you don't know how good it seems to get out. It seems as if I was let out of prison. My husband wears the belt in the forenoon for kidney trouble and it is helping him. He joins with me in their highest praise. If I could not replace it I would not take any amount of money for my belt. I would not give my Electric Belt for all the doctors and drugs in Syracuse if I could not get another. I would say to ladies who are suffering from diseases peculiar to our sex to try one of Dr. Owen's Electric Belts and you will find relief at once, for it did for me what medicines could not do, and I trust it will do the same for you. It will also take away that tired feeling and give you rest at night. Now, Doctor, please accept my thanks. You have my permission to use this letter, if you so desire. I feel it a duty to inform people of your wonderful discovery. Yours respectfully,

MRS. CHARLES FRANK.

ELECTRICITY IS NOT MAGNETISM, hence do not confound this Electric Battery with the magnetic belts offered; there is no similarity or comparison in their remedial powers. Electricity can, will, and does cure, while magnetism does not. Dr. A. Owen's Electric Belt is absolutely under the control and regulation of the patient.

Persons making inquiries from writers of testimonials are requested to inclose self-addressed, stamped envelope to insure a prompt reply.

## DR. A. OWEN'S ELECTRIC BELT

Is Especially Adapted to the Cure of the Following Diseases (Read the Testimonials).

Neuralgia, Sciatica, Insomnia, Hysteria, Melancholia, Paralysis, Epilepsy, Nervous Debility, Local Debility, Epileptic Fits, Kidney Complaints, Urinary Diseases, Catarrh, Asthma, Dumb Ague, Throat Troubles,

Deafness, Female Weakness, Change of Life, Rheumatism, Lumbago, Gout, Pain in Back, Spinal Disease, Cold Extremities, Sluggish Organs, Dyspepsia, Torpid Liver, Constipation, Piles, Wasting, Headache, General Debility.



MR. J. W. SMITH.

HOMOSASSA, FLA., July 14, 1892. The Owen Electric Belt and Appliance Company, Chicago, Ill.

GENTLEMEN: I hardly know how to express my feelings in behalf of Dr. Owen's Discovery of the curative power of electricity, which I assure you is one of the most wonderful things of the age. I am speaking just what I know from experience and what I have seen, and not what I have heard some other person say.

Last January, a year ago, I had an attack of La Grippe, and came very near dying, and never did fully recover from it, and in August following, with that and kidney trouble, under the influence of a tropical sun, my nervous system entirely gave away. By the first of November I was completely prostrated, and finally gave up all hope of living. I then decided to try electricity as a last resort.

I think it was in the last of November I ordered a No. 4 Owen Electric Belt from you, but with little hope of much result. I received the belt some time in December, and it soon began to tell the tale. In a month's time, without a dose of medicine, I had got strong enough to get up and dress myself, and a month later I was able to go four miles to see a neighbor who was almost hourly expected to die with paralysis that he had had for some eight or ten months. I insisted on his ordering one of your belts, which he promised me to do, and which he did, and to-day,

## As a Curative Agent

THE OWEN

## ELECTRIC BELT

HAS NO EQUAL!

HIGHLY ENDORSED

By a Reputable Witness

WHO KNOWS

OF HIS OWN KNOWLEDGE

to the surprise of everybody, he is almost a well man, and can go where he pleases. His name is James Moore, an honorable gentleman. Another of my neighbors, Mr. Head, was suffering with nervous trouble. I gave him one of your books and told him one of your belts was all he needed. He ordered one, and has been wearing it about two months, and he said to me a few days ago that it had about cured him. I am wearing my belt yet, but I am a well man. I have learned to love the influence of it, and it is only a matter of time when the old fogey way of drugging a man to death will be a thing of the past. When I first got my belt my lungs were so stiff that I could hardly breathe, and I decided to experiment with the belt a little and see if it would not relieve my lungs. Commenced wearing it up under my arms, across my chest, and it relieved my breathing at once. I could soon breathe as free as I ever could. I have never seen it tried, but I believe it would have the same effect and relieve persons suffering with asthma.

Yours truly, J. W. SMITH.

P. S.—Should any person doubt this statement, all I ask of them is to write to our Clerk of Circuit Court, County Judge, County Treasurer, Sheriff, or any of our County officers, who are all friends of mine and knew my situation. J. W. SMITH, Citrus County, Fla.

Persons making inquiries from the writers of testimonials will please inclose self-addressed, stamped envelope, to insure a prompt reply.

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DR. A. OWEN.

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